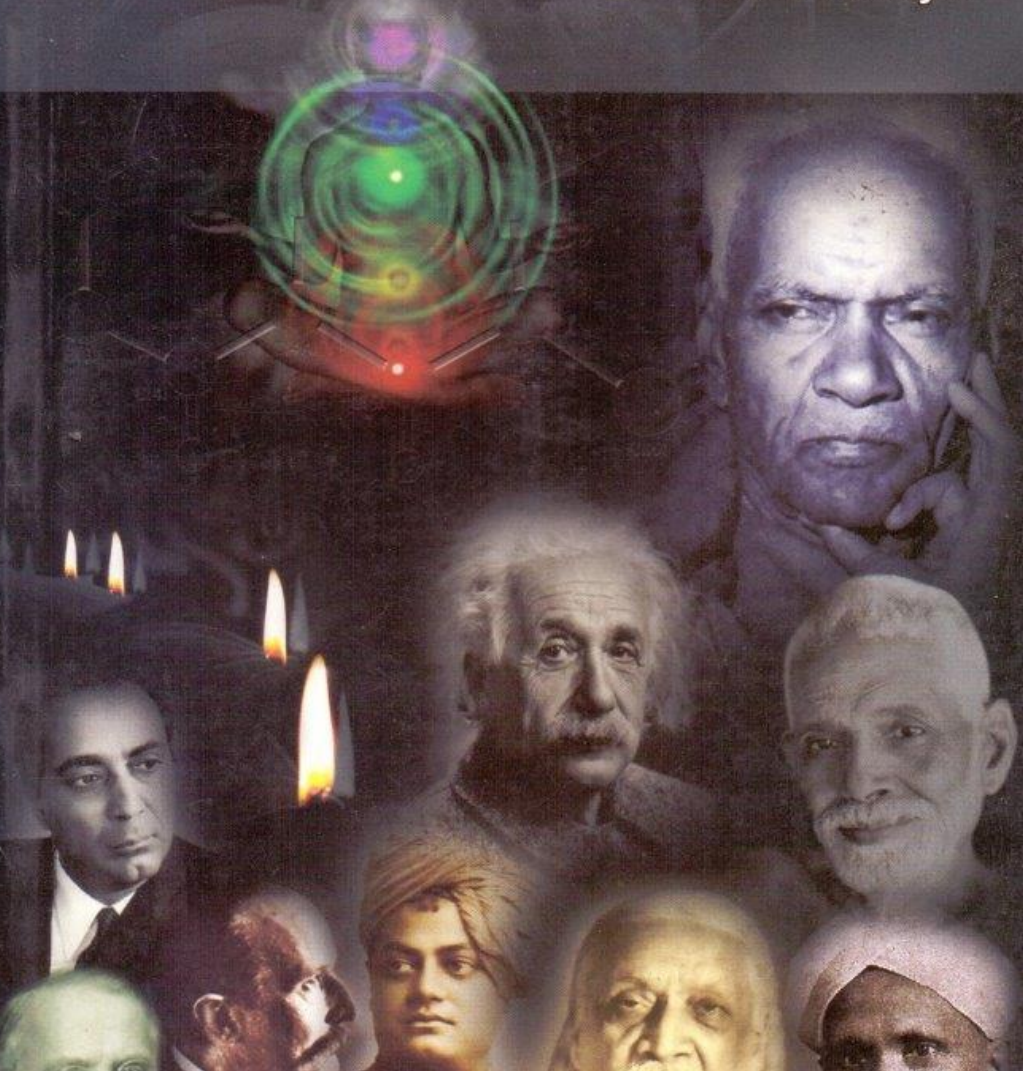


The Pioneers of Scientific Spirituality

- Dr. Pranav Pandya



The Pioneers of Scientific Spirituality

English version of
'*Vaigyanik Adhyatma ke Kranti Deep*' (in Hindi)

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An Humble Offering

At every juncture of Era-change, humanity has been blessed with the appearance of torchbearers of life-transforming light – seers, sages and saints. Some of them did scientific experiments in the field of spirituality, and some others enriched their scientific explorations with the intuitive insights of spirituality. At the threshold of the emerging new era, *Pragyavtar* (Wisdom Incarnate), *Yugrishi* (Seer of the present era), *Param Pujya Gurudev* (Pandit Shriram Sharma Acharya) has synthesized the quintessence of science and spirituality. His unique integrative insights contain the essence of the legacy of humanity's spiritual and scientific achievements and provide the guidelines for the future evolutionary growth of human consciousness.

When I met him for the first time nearly four decades back, he had sown the seeds of scientific spirituality. With the passage of time, the seeds sprouted and grew. His proximity extended from physical to subtle and then to the level of consciousness. Then he made me his soul's indivisible part. I started realizing that I have to search the meaning of my life in scientific spirituality and have to become an humble instrument for the spread of this light. He used to stress that scientific spirituality meant extracting the best from science and spirituality and fusing them to evolve a new philosophy and a new science for the new era.

Thus, in spite of my very demanding schedule of normal work, an electrifying urge keeps popping up deep in my heart that I have still to do a lot more towards fulfillment of Gurudev's central vision - scientific spirituality. As a step towards this, a few years back, Department of Scientific Spirituality was established in Dev Sanskriti Vishwa Vidyalaya (DSVV); and scientific spirituality was included as

a compulsory subject in the course curricula across the board. As a next step it was decided that the lessons of scientific spirituality should be imparted to youngsters, youth and their guardians in the form of interesting, motivating and enlightening stories, instead of hard to digest philosophical writings. Till now the lessons on spirituality have been imparted through stories, written in Sanskrit (as in *Puranas*) or folk tales in Hindi and other regional languages. Scientific stories have also been narrated in an interesting manner. But the intrinsic messages of both of them have not been driven home in an integrated way. This volume is probably the first humble attempt of its kind. For this we had to collect anecdotes and facts from Eastern as well as the Western sources; which were then threaded together in the light of the vision of *Yugrishi Gurudev*.

It was an absolutely new and challenging task. The toughest part was the timeline. The reason being - my own *Jivan Sadhma* coupled with the responsibilities of the Mission and DSVV. Added to these are equally taxing and time consuming tours in India and abroad. Even then the seeds of resolve sprouted in the soil of total surrender had to be nurtured and grown. The result is the publication of this book "The Pioneers of Scientific Spirituality". The publication of this book on Guru Poornima is like a divine gift of Gurudev himself for initiating collectively the new generation and their parents into scientific spirituality.

I perceive this book, inspired by his teachings, as an humble offering at his feet on Guru Poornima Parva.

- Dr. Pranav Pandya
Guru Poornima July 7, 2009

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The Super Science Gifted by Vedic Rishis

01

The enlightened vision of Pandit Shriram Sharma Acharya, founder of All-World Gayatri Pariwar, had envisaged 'Scientific Spirituality' as the beacon light of golden future for humanity. In his opinion — “the rigid convictions and practices of spirituality weaken their authenticity without scientific spirit and openness. The philosophy and teachings of spirituality without having scientific approach lose their relevance and originality in the smog of blind faith and superstitions. Science also remains narrow and incomplete without incorporating spirituality. Science without spirituality has no bonds of values and so there is an obvious danger of its becoming aristocratic and apathetic”

We all know that scientific and technological development may produce wealth, comforts and prosperity but not the elixir of peace, harmony and love. The light of sagacity and the perpetual power of inner strength too are attained only through spiritual progress. But most of us have somehow ignored the necessity of our own spiritual aspiration and

progress. Or, we have confused 'spirituality' with some rigid traditional teachings and/or the ritualistic form of religion. Acharya Shriram Sharma realized the root cause of this 'folly' of the wise and progressive minds of today and showed the path of scientific spirituality.

He conceptualized God as an absolute ensemble of highest order of virtues and the purest reflection of ultimate evolution of consciousness. He experienced the presence of Almighty as much in the altruistic sentiments of humanity as in the deep-ecological discipline of Nature and the driving force of cosmic order.

He regarded a human being not as a mere social animal but rather as the crown prince of God who has lost his way and forgotten his identity.

He defined scientific spirituality as evolved psychology that enlightens the human mind and awakens divine sensitivity in the human heart. He regarded scientific spirituality as the key to holistic management and progress of human life on personal, familial and social fronts. He stressed the necessity of positive attitude and focused and thoughtful zeal towards self-refinement and self-development as essential features of scientific spirituality and designed effective methods and training programs to achieve this.

Normally, he used to formulate and commence the major annual tasks of his mission of social, spiritual and cultural

elevation of mankind, as per the celestial inspirations of his Master, the angelic Himalayan yogi Swami Sarveshawaranand, on the auspicious day of Vasant Panchami. But something unique happened on his thirty-fifth birth anniversary, in September 1946! His mind was deeply engrossed in planning something; perhaps it was reading the course of events that were to occur soon to materialize his ideas.

He had received some sublime messages in a state of trance during *Gayatri Sadhana*. It was not a new experience for a spiritual saint like him, who, like Vedic *Rishis*, was a *mantra-drishta* — a visionary of the sublime realms of Nature who could grasp the subtle sound of Vedic Mantras and their cosmic vibrations. What he had 'heard' this time were two letters — “*Vigyan*” (Science) and “*Adhyatma*” (Spirituality). He, who had pioneered renaissance of the *rishi*-culture in new scientific light and incorporation of spiritual values in daily life, could easily decipher the meaning and implications of this new 'mantra' of “Scientific Spirituality” As a dedicated scientist thoughtfully plans investigations on his novel ideas or hypotheses, he was also thinking on different aspects and multiple dimensions of scientific spirituality.

This day was also special because, as per the sublime indications, he had got a relevant message from somewhere in this physical world too! It was a letter of Sri Ramnarayan Kediya from Calcutta. Sri Kediya had come in contact with Pandit Shriram Sharma Acharya through

“Akhand Jyoti” (magazine). He was reading this magazine since past couple of years and was also inspired by Acharyaji's saintly affection. He used to visit the “Akhand Jyoti” publication centre in Mathura and meet the latter every year. He used to write to Acharyaji quite regularly. In this letter, which was received on his birthday in September 1946, Sri Kedia had written about his recent visit to Shantiniketan. His house in Calcutta was not far from Shantiniketan so he had visited this unique university of art and culture several times. In his recent visit that was referred in this letter, he happened to have met noted scholar Acharya Hazari Prasad Dwivedi. Shri Dwivedi was a renowned critic and scholar of Hindi literature. He had been a Professor of Hindi in the Vishwa Bharati University at Shantiniketan since 1930.

Upon his meeting with Prof. Dwivedi, Shri Kediya presented him some recent issues of the Hindi monthly “Akhand Jyoti” This magazine was edited by Pandit Shriram Sharma Acharya and most articles in this unique magazine of social reformation and spiritual upliftment were written by him only. Prof. Dwivedi was very much impressed by the purpose, the originality of its style of writing, its sagacious level, lucidity of language, and innovative way of explaining spiritual concepts. He expressed the desire to meet the editor of “Akhand Jyoti” and asked Shri Kediya to invite Acharya Sharma.

All this was reported in the above-referred letter of Kediya. While reading this letter, Acharyaji's

extraordinary brain could also sense the ideal time for visiting Shantiniketan. He immediately called someone from the "Akhand Jyoti" office and gave him instructions to book his tickets for Calcutta for a particular date and to also inform Kediyaaji via telegram. He had been to Calcutta earlier and had also visited Shantiniketan and met Shri Rabindra Nath Tagore there. The latter was very sick at that time but had still given time to Acharyaaji. However, Prof. Hazari Prasad Dwivedi was out of town at that time.

Within a fortnight or so after receiving Shri Kediya's letter Acharyaaji reached Calcutta; and they both went to meet Prof. Dwivedi. The latter was meeting Acharyaaji (Pt. Shriram Sharma Acharya) for the first time. Prof. Kshitimohan Sen and Shastri Vidhushekhar were also with him. Acharyaaji's personality was majestic — tall, fair, straight, with an illumined aura of *tapa* on his face, and radiating eyes. His eyesight seemed to have just frozen for a few moments, while looking at him. He greeted Acharyaaji with a feeling of reverence.

It was a great coincidence that Nobel Laureate Sir Dr. CV Raman's lecture was also scheduled there the same evening. He was going to deliver a popular lecture on wider role and expansion of science in human life. After brief discussion, they all went to the auditorium. The lecture began.

Dr. CV Raman was a genius of Physics and also a good orator. He had great respect for Mahatma Gandhi. The

story of Siddharta's (Buddha's) renunciation and books like "The Light of Asia" had great impact on him since young age. He had great regard for human values and Indian philosophy that nurtured them. He always had a holistic view of science. He thought nature is the best teacher. He used to say: "What is science in the last analysis but the study and the love of nature, displayed not in the form of abstract worship but in the practical form of seeking to understand Nature..." He also remarked: "One aspect of Indian culture was its profound understanding of Nature. Much of India's philosophy related itself to the understanding of the rationale and the meaning of the phenomena of Nature."

That is what was vividly reflected in his speech that day. Wearing a black long gown, that the Vishwa Bharti University had adorned him with, as a mark of honor, he was speaking fluently. He reminded the audience that the 20th century had been the age of science. No front of life in this world was isolated from its magical developments. If there were any, those too would be embraced by it sooner or later. He also emphasized and cautioned that progress of science should aim at welfare of the world and that this was the greatest challenge for science as well as challenge before humanity. Neither science nor the scientists should be apathetic or sans human sentiments and values; he continued... Every word of his speech was thought-provoking and was touching the hearts of audience.

Sir Dr. Raman's faith in spirituality was clearly expressed in simple terms in the context of what Mahatma Gandhi taught. In this regard he used to express his views that "His (Gandhiji's) teachings stressed the supreme virtue of the human spirit, utterly indestructible and unconquerable. India can never hope to find a place in the Sun, unless it upholds the values of the human spirit."

As Dr. Raman had visited Shantiniketan earlier, Prof. Dwivedi was known to him. "Let us meet the eminent speaker", he told Acharyaji and others with him after the talk.

Dr. Raman emphasized the need for implementation of the ideas into reality for the benefit of mankind. Pandit Shriram Sharma Acharya (Acharyaji) remarked: "The same is required in the field of spirituality as well. Spirituality can't be adopted only through lip-service or by ostentatious rituals and orthodox customs. One does not have to renounce the world and go to the forests or remote mountains to practice it. There is no place for blind faith or superstitions in it. However, it will need the support of science to cast out the prevailing misconceptions and delusions. It will have to prove its authenticity. Spirituality and science should support, guide and supplement each other."

Everyone present there concurred with these comprehensive views of this young, trenchant spiritual yogi.

Cultivation of the “supreme virtue” of human spirit in science that Dr. Raman emphasized in his speech and in the ongoing discussion conveyed the crucial role of spirituality in every aspect of science. In this context his views implied that the 20th century might have been the age of science but the future would lie with its holistic version integrated with spirituality.

Thus the joint views of the two preeminent masters of spirituality and science clearly indicated that the 21st century would witness the era of “Scientific Spirituality” - the 'mantra' that the spiritual acumen of Acharyaji had perceived from the invisible folds of time.

After returning to Mathura he published a special issue of “Akhand Jyoti” pertaining to different facets of scientific spirituality. The bottom line of his editorial on its very first page said - “(Dear) Readers of Akhand Jyoti! Please note, what is of foremost importance to be read and grasped (in human life) is “Scientific Spirituality” This is a super science gifted by vedic *rishis* and also practiced (for holistic development)”

Through this distinct magazine of Thought-Renaissance, he propagated the need for modifying the prevalent forms of religious philosophies and practices in scientific light with prudent acumen to eliminate baseless, preposterous convictions, blind faith, superstitions and meaningless rituals. He showed the practical ways of how the commonality between scientific and religious approaches

could be used towards social upliftment and welfare. He also guided how the similarity and mutual complementarity of the findings of the two streams could be channelized for viable progress.

Way back in the early 1940s he had initiated dissemination of spiritual knowledge and ancient Indian cultural values in scientific light. He also advocated integration of science and spirituality in a practical way for global welfare. Through his mission of "*Yug Nirman Yojna*" (literally meaning - Plan for ushering of new era), he propagated and launched several welfare projects for men, women and children from all walks of life to train them in the art of holistic living. The Gayatri Tapobhumi at Mathura and the Shantikunj Ashram and Brahmavarchas Research Institute at Haridwar established by him stand as living models of how the shape of human society would be if scientific spirit and spiritual values were adopted in day-to-day life.

His monumental writings of over 2400 books are a unique source of illuminating multiple dimensions of life with the glow of scientific spirituality.



Incessant Journey of Scientific Investigations

02

Science means knowledge and elucidation of truth. The *rishis* – Indian sages of yore – had pioneered this search of truth – reality of Nature, reality of life, its genesis and ultimate evolution – tens of thousands of years ago in the pre-historic times. These visionaries, discoverers and inventors of the science of Nature and Consciousness also used to share their views and research findings in periodic conferences organized in different parts, usually along the banks of major rivers, of ancient India. Here is a sketchy description of one such panel discussion.

“The science propounded by the *rishis* pertains to decipheration and expression of the power of Nature and truth of the Omniscient Spirit from different angles. It has uncountable dimensions, each interlinked with the other in some respect. Its domain is infinite; there is novelty as well as convergence in each branch, each facet, and each aspect of research in this science. The flow of knowledge is eternal. Hence the path of science will continue forever. Its research will carry on without a pause” – with these opening

remarks, *Maharshi* Angiras welcomed the august gathering of *Maharshis* (*rishis*, who had achieved eminence in their fields of research), *Manishis* (accomplished scholars) and *Brahmacharis* (research students). This was a gathering for a special advanced research conference. Almost all *Maharshis* from across Aryavarta (ancient India) had come there with their scholarly disciples. The venue also was special - panoramic banks of river Saraswati at the feet of the majestic Himalayas.

Nurtured by the nectar-like pure water currents of Saraswati, this place, under the serene shades of silvery white Himalayan Mountains was pervaded with immense natural beauty: surrounded by multicolor smiling flowers here and there protected by lush green rows of tall trees standing like alert guards with their heads up in pride of the motherland and natural carpet of soft green grass on the floor. A dense forest was not far off - which reverberated with casual roars of lions and varieties of other loud or melodious musical sounds of cheerful animals in the open air. The “Kasturi” deer found in that region were running around the venue without any fear and thus spreading soothing fragrance everywhere. Being the Ashram of *Maharshi* Angiras the place was vibrant with spiritual energy. The *Maharshi* was the organizer of this conference.

There were nearly a thousand brilliant participants. Noted amongst invited speakers were *Acharya* Bharadwaj (son of Brahaspati), *Rishi* Pragahs, *Munivar* Vambarish, *Maharshi*

Medhatithi Kanva and *Acharya* Vasushrut – who used to call himself as “son of the soil” They were stars of attraction because of their recent findings. They had investigated the science of Nature in a comprehensive way and deciphered novel aspects of its visible and invisible facets. At the end of his welcome address, Maharshi Angiras invited all of them on the dais and requested them to commence the panel discussion highlighting the aims and scope of the conference.

Acharya Bhardwaj spoke on the holistic approach of the ancient Indian sages towards scientific research. He said that science as viewed and developed by the rishis *pertained* to search of truth in an absolute sense and it was not confined only to matter or manifestation of nature, which was perceivable through the sense organs; rather its domains of research encompassed the infinite expanse of Nature, consciousness force and eternal reflections of God.

Supporting the views expressed by *rishi* Bhardwaj, *rishi* Pragath said that if a research was constrained by a preconception, prejudiced views, it would not be considered scientific, as it would not lead to the search of truth. Truth by its very definition could not be restrained by specific theories or prevailing ideas of contemporary scientists; one should be focused but should not regard that truth could be investigated only in a particular way or that truth was truth only if it could be verified according to some set norms. Such convictions made scientific motives of research as unscientific, he said.

He further said that those who believed that science pertained to only that which could be investigated, experimented or tested, using material means blocked the real pursuit of science. Physical, Chemical or Biological sciences were confined only to the material domains of Nature. These could decipher material elements and energy as long as these could be studied via some instruments. These were confined to perceivable existence of the inanimate and animate manifestations of Nature. These alone would not lead to truth, thus these alone could not be regarded as science. He illustrated his point by elaborative examples in an interesting way. No one would have disagreed with what he said.

Munivar Vambarish explained the point more deeply: "Matter or whatever the researchers of the perceivable Nature* regard as elements of creation of matter is only a manifestation of the *tamoguna* of Nature. The *rajoguna* generates activity (energy vibrations and vitality) in every element of Nature. The *satoguna* constitutes what corresponds to the expression and perception of consciousness and its spiritual faculties. Thus, even the science of nature would be incomplete without considering the domains of *rajoguna* and *satoguna*. That means that along with the study of matter and energy contained in its elements, scientific research should also encompass the study of *Prana* (life-force, vital energy), mental and spiritual energies, expressed as well as intrinsic roots of thoughts and emotions, subconscious

and unconscious domains of mind, sublime facets of spirituality and soul-reality.”

“This holistic approach is the nucleus of the scientific investigations of our ancient *rishis*” — Acharya Vasushrut suffixed this sentence as an approval and completion (or complementary) remark to what his predecessor had explained. Continuing further he said: “Considering only on the physical (i.e. within the grasp of sense-organs or instruments) domains of Nature keep one's research trapped in the periphery of matter and limited forms of energies. Pursuit of this kind of science shields the sight of truth. Single-tracked approach cannot lead to the real purpose of science. If the scientists keep aside the prejudices of regarding truth as what the contemporary norms and theories in their field of specialization suggests and discard the negative approaches of rejecting other (subtler) dimensions of Nature, they would be able to see newer horizons of Nature and may some day succeed in deciphering the ultimate reality of the soul and the supreme spirit (God).

The science propounded by the ancient *rishis* is free of all such limitations; it adopts positive approach to knowledge and research embracing all the visible and invisible, the physical and sublime, the mental and spiritual, expressions of truth beyond the periphery of space and time. This is why their path leads to peace, harmony and welfare of all. Negative approach of material based science* may be misused and lead to destructive

developments. A positive or constructive approach makes prudent use of everything in nature for noble purposes. For example, in Ayurveda, every plant may be used for some medicinal preparation. On the contrary, a single-tracked materialistic goal-oriented researcher may synthesize an artificial medicine** or may convert a natural product into a toxic** one." Most importantly, the speaker emphasized that "the science of *rishis* aims at *satyam*, *shivam*, *sundaram* – it not only leads to the search of truth (*satyam*), but also to benevolence (*shivam*) and auspicious bliss (*sundaram*)"

The host *Maharshi* Angiras was attentively listening to the discussion; the smile on his face reflected a deep sense of contentment and appreciation in his heart. He suddenly looked at *Maharshi* Medhatithi Kanva who had been silent till then; he appeared engrossed in some deep thoughts. He was senior-most of the eminent researchers, who had explored and experienced the subtle world inside the atoms and subatomic particles and also the world beyond our three dimensional space. *Maharshi* Angiras requested him to say a few words on the theme of the panel discussion.

The preeminent spiritual scientist said — "Every realm of existence is as real as the world on this earth. As the plants, animals, humans and other creatures and life-forms exist on this earth at different levels of manifested expression of the Omnipresent Consciousness Force; similarly, the *yakshas*, *pitars*, *devagana*, etc exist in subtler realms. The

ionosphere and ideosphere of the earth are affected not only by the energy waves of the animate and inanimate creation on the earth, but also by the energy currents in the other realms of existence. This science of our Vedic *rishis* deals with the study of this interdependence as well. As all the scholarly views presented so far have pointed out, there is no limit of time or space in the investigations of these scientists. After all, their science is holistic. It aims at elucidation of the absolute reality of Creation (Nature) and the Creator (God), all dimensions of their existence and expressions, all realms of evolution of life"

After highlighting this '*satyam*' aspect of *Rishi-Science*, he also reminded the younger researchers of its role as *shivam* and *sundaram* by reminding them that the Vedas say - "*Vigyan yagya Tanute, karmani Tanute api Cha |*" (Meaning - Science protects and nurtures the growth of all *yagyas* - experiments for global wellbeing and also of all *karmas* - deeds of happy progress).

Indeed, this concluding remark conveys a message that is relevant even today. May these inspirations of the '*Rishi-Science*' cultivate spiritual attitude in the modern science too.

Modern science and technology fall under this category.
Several of the synthetic drugs and antibiotics are of this type.



Genesis of Quantum Theory from Sublime Revelations

03

Spiritual attitude induces ever-new enthusiasm and inspiration in a scientist's inquisitive mind. If a scientist adopts a spiritual attitude towards existence, his research will be more purposeful and beneficial for the welfare of mankind and the world. Spiritual attitude of a scientist leads his findings towards benevolent goals. Nobel Laureate Max Planck (b. 1858 – d. 1947) was among the scientists of this distinct caliber whose highly gifted genius never lost sight of spirituality in the glitter of epochal scientific inventions and achievements.

This great founder of Quantum Mechanics was always interested in borderline problems of physics and philosophy and published many addresses and articles in this domain. Planck was interested in Truth and Universe beyond observation, and objected to atheism as an obsession with symbols. At the same time he, despite being an ardent Christian, was against the Church organizations' demands for unquestioning belief.

He was averse to religious intolerance and also to the prevailing misconceptions on fate. In his views, as conveyed in a translation of his speeches on related topics, "It is a dangerous act of self-delusion if one attempts to get rid of an unpleasant moral obligation by claiming that human action is the inevitable result of an inexorable law of nature. The human being who looks upon his own future as already determined by fate, or the nation that believes in a prophecy which states that its decline is inexorably decreed by a law of nature, only acknowledges a lack of will power to struggle and win through"

Much like the *rishis*, the Indian scientists of spirituality, the God in which Max Planck believed was an Almighty, Omniscient, Benevolent but Transcendent Spirit that permeated everything, every manifestation of Nature, including the physical laws.

His views reflect the natural approach of scientific spirituality. For example, he writes in "*Where Is Science Going?*" [Book by Max Planck, with a Prologue by Albert Einstein, Translation and biographical note by James Murphy; New York: W. W. Norton & Co., 1932], — "We must admit that the mind of each one of our greatest geniuses — Aristotle, Kant or Leonardo, Goethe or Beethoven, Dante or Shakespeare — even at the moment of its highest flights of thought or in the most profound inner workings of the soul, was subject to the causal fiat and was an instrument in the hands of an Almighty law which governs the world."

Max Planck (baptized name: Karl Ernst Ludwig Max Planck) was born in Kiel to Johann Julius Wilhelm Planck and his second wife, Emma Patzig. His was a traditional, intellectual family. His paternal great-grandfather and grandfather were both Professors of Theology at Gottingen, Germany. His father was a Professor of Law at Kiel and Munich. His paternal uncle was a judge.

Little Max was born with sharp intellect and creative talents. Music was his first love but Physics fascinated him, too. He was curious to know about the universe and wondered about who would have created it? His grandfather often used to encourage his quest and inspire him to look deeper into the depths of the phenomena of Nature. Perhaps, his theological views had motivated Planck's brilliant mind to look at a unified force working behind every activity of Nature, even the tiniest particle of matter existing in it.

His creative approach to science is so finely articulated in one of his articles, where he says (translated version of original German text)–“Science means unflinching endeavor and continually progressing development towards an objective, which the poet's intuition may comprehend, but the scientist's intellect can never fully grasp...”

After his early education at Kiel till 1874, Max Planck pursued his higher studies at Munich and obtained a doctorate (Ph. D.) in Physics from University of Munich at the age of 21. His thesis was titled “*Über den zweiten*

Hauptsatz der mechanischen Wärmetheorie (On the second fundamental theorem of the mechanical theory of heat). He continued his fundamental research in Thermodynamics and related areas of Theoretical Physics. He obtained many important results and became a full professor at the University of Berlin in 1892. Noted scientists and theologians like Albert Einstein and Adolf von Harnack were among his close friends there.

While working on a project to produce maximum light from light bulbs with minimum energy, he turned his attention to the problem of “Black-body Radiations”: How does the intensity of the electromagnetic radiation emitted by a black-body (a perfect absorber) depend on the frequency (e.g. color of light) of the radiation and the temperature of the body?” The question was posed by Kirchoff way back in 1859 and had been explored experimentally, but no theoretical treatment agreed with experimental values, despite the dedicated attempts of many contemporary scientists. Planck too had tried out several solutions – including the Wien-Planck law, but much to his frustration nothing could convincingly explain the experimental observations.

In a mood of despair one evening he sat alone in the living room and started playing his piano. He was truly gifted when it came to music. In school days itself he took singing lessons and played piano, organ and cello, and composed songs and operas. So much so, that his Physics professor Philipp von Jolly himself had advised Max against going

into Physics, saying, "in this field, almost everything is already discovered, and all that remains is to fill a few holes." Planck replied that he did not wish to discover new things, he wanted only to deeply understand the knowable fundamentals of the field.

His creative talent in music flourished along with his deeper studies and research in the dry subject like Physics. Music was much more than only a means of recreation for him. His family (wife Marie Merck and children: sons Karl and Erwin and twin daughters Emma and Grete) also used to enjoy his and his friends' musical performances. Often on the weekends the Planck home used to appear like a social and cultural centre. Several of his friends (mostly scientists and Professors at the university) used to visit them and participate in the mini-musical programmes. Well, so it was not new for his family to find him engrossed in playing his piano.

But, that day was somewhat distinct. His eagerness to resolve the research problem that was sitting in his head since several years, coupled with a feeling of despair - due to failure of all thorough efforts so far - was making a special effect. Along with the music he also got immersed in the memories of his father and grandfather. Their photographs were kept in the living room and he often used to tell his children the stories of his childhood, especially about his grandfather's theological lessons. Couple of times he had also experienced that his grandfather was 'preaching' him in dreams.

Memories of his grandfather and the intense flow of piano's melody that evening seemed to have taken his heart into the sublime realms of Nature. He experienced unique joy. He did not realize when he felt asleep. In the dream he found himself in a pool of light. There was serene music of Nature in absolute silence. He then saw his grandfather, whose face also appeared as emitting light. He heard as though his grandfather was telling him - "Look Max, everything is made up of subtle energy-particles, whether it is an element of matter or light. These energy-particles flow continuously at a fixed rate."

He woke up suddenly after the dream, full of new energy and ideas. He could not sleep any more that night. He also reached the university much early next morning and started working on his papers. The dream sparked a 'scientific intuition' in his mind, some words echoed in his mind sounding like "fixed quantity", "common energy", etc. His sharp and prepared brain, which was so thorough in analyzing different aspects of energy-radiation, got it right. "Yes it must be that energy moves in fixed quantity" - he hypothesized. He modified his earlier theory and jotted down new formulae. His new theory described the experimentally observed black-body spectrum well.

The central assumption behind this new derivation, presented to the DPG on 14 December 1900, was the supposition that energy could be emitted only in quantized form, in other words, energy could only be a multiple of an elementary unit (called '*quantum*'). This is

what formed the basis of *Quantum Mechanics*, which gave new direction to Physics and scientific and technological research and developments thereafter.

Science has advanced a long trajectory since Planck's *Quantum Theory* and Einstein's *Theory of Relativity*. But the goal of deciphering the Nature and unfolding the ultimate Truth is still far from sight a century later. A holistic approach synthesizing spirituality along with integration of natural and social sciences would be the best option in the new millennium to proceed in the right direction towards plumbing deeper depths of reality.

Perhaps Max Planck also envisaged it when he wrote – “I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness” [c.f. *The Observer*, January 25, 1931].

Planck also perceived the eternal bond between natural sciences and spirituality, as he remarked – “Both religion and science require a belief in God. For believers, God is in the beginning, and for physicists, He is at end of all considerations... To the former, He is the foundation, to the latter, the crown of the edifice of every generalized world view” [c.f. *Religion and Natural Science* –lecture given in 1937; published in Max Planck's “*Scientific Autobiography and Other Papers*” translated by F. Gaynor, New York, 1949; pg 184].

Mystic Cores of the Himalayas that Witnessed the Genesis of Spiritual Science

04

The quest for historical view of the spiritual age brought a distinct smile on her pink lips, the glow in her bluish eyes brightened further. Engrossed in her thoughts she started strolling in her study hall; after a while, she stood near a bookshelf; there were several such shelves in the hall, each packed with the books on religion, philosophy, spirituality and science. The collection reflected her intense interest and inclination towards spirituality. While she was about to pick a book she heard some footsteps. Stunned for a moment, she turned her face back. Oh! It was her husband Philip Neal, who was entering the hall. Both greeted each other with a warm smile. The two had very different tastes for reading; their outlooks towards life too did not match. But they respected each other's views and loved each other through heart.

“Is it confined to only reading, or you are also preparing to have some more firsthand experience too!” — He wondered pointing at the book on mysteries in the Himalayas that she had just taken out of the shelf. Philip

knew she had a liking to visit new places in the vicinity of Nature. Born and brought up in a lovely town of France, she had toured around England, Switzerland and Spain at the young age of eighteen. Less than a decade ago, she had visited India and Srilanka (Cylone). She, Mrs. Alaxendra David Neal (b. 1868, d.1969) was the first European woman to have reached and stayed at some arduous places in the Himalayas. She had intense affinity and faith in the Himalayas. She had thoroughly read the basics of Vedanta Philosophy and Buddhism.

She was reading the Upanishads those days. Often, while discussing with her husband, she used to tell him that spirituality is not an expression of imaginative emotions or occult experiences. Rather, it is as scientific as any other branch of science, and has a scope for experimentation and verification too. She would also explain that the proofs of spirituality being a science are present in *Vedanta Darshan* (Vedanta Philosophy) and the Upanishads. In her views, Lord Buddha had accomplished his spiritual *sadhanas* in a scientific manner.

In spite of his materialistic views, Mr. Neal was an admirer of his wife's spiritual depth, determinism and scientific attitude. A beautiful, charming, tall lady, with sharp features and fair complexion, having a pure, compassionate heart and simple life-style – she was so different from most other women of her times! She was bright, thoughtful and efficient in whatever task she would take in her hands. He often used to feel proud of her.

In response to his query, she responded with a broad smile – “Yeah! I want to go to India. This time I want to spend more time in the Himalayas” Philip sat in the hall and thought for few minutes. “Well I will try to arrange your voyage”, he said. The same day he sent a telegram to his old friend William Jones, noted historian and orientalist who was staying in Calcutta at that time.

Alexandra undertook her second voyage to India and reached Calcutta; this was sometime in 1912. William Jones was happy to meet her there and to know about her plans to visit the Himalayas. Their spiritual nature, views on Indian Philosophy and attraction for the Himalayas were very similar. So they gave good company to each other during the arduous voyage to the Himalayas. Their discussions revolved around deeper aspects of spirituality, the lives of great spiritual masters, their experiences in the Himalayas, etc.

Talking about scientific approach to spirituality, William Jones expressed the views that – inquisitiveness to decipher the truth behind a natural phenomenon or an experience/observation, dedicated and systematic efforts and experimentation towards this search without any prejudice or bias for or against the results, analysis and elucidative conclusion of the outcomes of the (re) search, in short this is what amounts to a scientific investigation. The Vedic sages (*rishis*) had adopted this approach in their spiritual experiments. This tradition was followed in the Upanishads as well. In the later ages it was also adopted by

Socrates in Greece and by several noted western philosophers in the successive generations. From Vedic *Rishis* to Vivekanand, from Socrates to Spencer, we can find a scientific expression of spiritual quest.

If there is any difference in the Oriental and Occidental sides of this foundation of Scientific Spirituality, it is that – in the Orient, especially in India, there have been thorough experiments (*sadhanas*) of spiritual realizations, whereas in the West, it is mainly confined to philosophical thinking.

As most of the spiritual experiments of the *rishis* and their followers in the post Vedic times were carried out in the Himalayas, these pristine mountains, their divine serenity continue to attract seekers of spiritual light from all over the world.

Mrs. Neal agreed with Jones' views about the ancient *rishis*. She had great regard for the Himalayas, as, it was here that the *rishis* – the spiritual ancestors of mankind – had had the first-ever spiritual realization. It is here that one experiences a divine vibration in the ambience.

Traversing the hills in the North-east region of India on foot, they had finally reached near the snow filled range of Himalayan peaks near Sikkim after some short sojourns. The weather was chilly and cloudy. It was dark much before evening. Drenched in the drizzling, they were

wondering whether they would be able to continue their climbing and reach somewhere to find what they had come for.

Soon the drizzling got converted into heavy rainfall and the chilly breeze into heavy storm. There was nobody around to help these voyagers who were on the way to seek spiritual light. Their bodies could not bear it for long. They fainted and fell down. There is high risk of people getting buried under the snow if trapped in such a situation. But destiny had something else written for Madame Alexandra David Neal and Sir William Jones, the devotees of scientific spirituality.

When they regained consciousness, they found themselves in a beautiful, warm cave in the Himalayas. The snow-covered peaks outside this cave appeared golden as the sunrays of dawn fell upon them. Before they could realize whether they were awake or in dreams, a grand divineline sage sitting outside the cave entered and greeted them saying that they were now safe.

Amazing! Neither Mrs. Neal, nor Mr. Jones experienced even a bit of fatigue. They were feeling fresh and charged with unprecedented energy! "Where are we at present?" Alexandra asked him in broken Hindi. He responded back in English. (Certainly, for spiritually enlightened Himalayan yogi like him, there is no limitation of language or of any domain of knowledge.) He informed them that they were in a transcendent core of the sacred Himalayas,

where the science of spirituality was born. This is most mysterious part of the Himalayas where no one can reach (without any help from the sublime world). This is the place where the divine voice of the Vedas was first heard (realized by spiritual mind of the Vedic *rishis*), where the knowledge of the Upanishads was first heard by human mind (grasped by the Vedic *rishis*). God is the absolute scientist. Then how could His knowledge (the Vedic texts), or the methods of knowing Him (methods of spiritual enlightenment) could be unscientific?

Uttering this, he took them along to a huge cave that was fully covered by snow. While they reached nearby they could see that it had a door, which was shielded by a huge rock. Adding to their astonishment, their 'divine yogi' guide removed the rock single handedly! That cave was like a tunnel. Silently they all crossed it in a few seconds and reached a panoramic ground that was full of rare species of plants and flowers. Springs of silvery water falling from some mountains were adding to the spectacular splendor of this paradise. The surroundings were pervaded with a divine glow and heavenly fragrance. There were several caves all around in which the *rishis* and great yogis appeared engrossed in spiritual *sadhanas* in their subtle bodies.

So you see! This is the spot where the foundational experiments of spiritual science were conducted and are continued forever.... This is from where the perturbations in the Natural events, and in global phenomena are

controlled as and when required to protect the world. This is from where the inspirations of spirituality, radiations of spiritual light are spread in all directions and are perceived by the deserving minds (of the spiritual devotees, *sadhaks*) in different parts of the world.

Amazing! Marvelous!! Miraculous!!! The visitors could not believe their eyes. Their hearts and minds were floating in a beatifying bliss and astonishing experience. They had no words to express their feelings, as though their tongues were frozen in the thrill of mystery. They had witnessed the place of origin of spiritual knowledge! This was like ultimate achievement for them. Flying in the emotional sky of divine contentment, they started feeling sleepy. But when they woke up they found themselves in the Lachen monastery in North Sikkim. Lama Gomchen (great hermit) was sitting in front of them. Before they could ask anything, he smiled and said; "What you experienced sometime back was a glimpse of reality. Indeed, the field of spiritual knowledge, spiritual methods and spiritual experiences is entirely scientific. At the right time, the inspirations of the great Himalayan spiritual masters (the *rishis*) will revive this deeper science as "Scientific Spirituality" This missing link of the ancient, foundational knowledge, and the genesis and 'historical background' will be retrieved then. Most importantly, the eternal purpose of this epochal science will not only become evident before us, but it will also guide us towards the path of exploration of scientific spirituality."

Carl Jung Found Ultimate Light of Knowledge in the Teachings of Maharshi Ramana

05

This was in the beginning of year 1938; winter was at its peak in Switzerland when Carl Gustav Jung – an eminent psychologist and seer of the modern times and the founder of *Analytical Psychology* – received the invitation of British Govt. in India to visit this land of Himalayan sages. This was a great blessing for him. Because ever since he had dived deeper to decipher human psychology and nature, he had been attracted towards Indian philosophy and spirituality. The intensity of his attraction had increased after reading about the spiritual wisdom and approach of Maharshi Ramana in Paul Brunton's "*In Search of Secret India*" He felt confident that this spiritual master would unfold the yet undiscovered facets of the science of the unconscious before him.

Dr. Carl Jung (b. 1875, d. 1961) is reputed as the first modern psychologist to state that human psyche is "by nature religious" and to explore it in depth. This fourth but only surviving child of Paul A. Jung and Emilie Preiswerk was introvert and thoughtful since his childhood. His mother's psychic problems had perhaps motivated him

since his pre-school days to become a psychiatrist himself who could effectively resolve and heal the psychological problems of his patients.

Considering that it is the unconscious, which influences the activities of the conscious mind and behavior, he initially worked with Sigmund Freud, who was a renowned exponent of this theory. However, as Freud's approach was single-tracked with the focus mostly confined to psychopathology of sensual desires and sex, Jung broke away from this tradition. He emphasized understanding the psyche through exploring the worlds of dreams, art, mythology, religion and philosophy. His approach to psychology has been influential in the field of "Depth Psychology" and in counter-cultural movements across the globe. His most notable ideas include the concept of psychological archetypes, the collective unconscious and synchronicity.

In his attempt to define universal pattern of psyche, he spent substantial time studying Western and Eastern Philosophy and Social Psychology. Following World War I, Jung became a worldwide traveler, facilitated by his wife Emma's inherited fortune as well as the funds he received through psychiatric fees, book sales and honoraria. The invitation from the British Govt. in India had brought him the most exciting opportunity he was looking for.

He discussed with his wife about his plans of visiting India. Realizing his ardent desire, she agreed with a smile. Their children – Agatha, Gret, Franz, Marianne and Helene

- were also around at home when he got the invitation. Everyone enthusiastically cheered and shared his happiness.

Carl Gustav had immense spiritual quest. But, his scientific mind was not ready to accept things simply out of faith or emotional attraction. He was eager to find, to experience the light of science in spirituality. Something inside was telling him that he would get it soon in India. He traversed the long tiresome voyage to India full of hope and without any trace of fatigue, as though some unknown force was pulling him towards a higher goal. The very thought of meeting Maharshi Ramana itself had filled his heart with an unprecedented joy.

Upon reaching India he first reported at Delhi. There weren't many official procedures or formalities required to be fulfilled those days. There weren't any security issues either. Moreover, he was a government invitee so everything went off smoothly for him in Delhi. He also got support and guidance to reach Tiruvannamalai.

He was thrilled to have a magnificent view of the serene Arunachala at Tiruvannmalai. There he learnt from the local villagers that Sri Ramana had followed a devout ascetic life carrying out spiritual *sadhana* for more than twenty years in some caves on the side of this holy mountain, which is believed to be a manifestation of the (*linga* form) of Lord Shiva. He reached the Maharshi's ashram with the help of the locals. The ashram was right beneath Arunachala. Natural beauty of the region,

pervaded with the positive energy-vibrations of Maharshi's *tapa*, had almost hypnotized the visitor.

Some disciples including Mudaliyar Granny, Echchhamma, Ramnath Brahmchary and Madhvaswamy were working in the ashram premises at that time. They welcomed the visitor (Dr. Jung). Ramnath Brahmchary arranged for his stay and took him to Mr. Annamalai Swamy in the ashram.

Annamalai Swamy was fluent in English conversation. He was also Maharshi Raman's senior disciple and secretary for managing his schedule. Dr. Carl Gustav Jung told him the purpose of his visit. "Maharshi will meet you in the evening today itself", he was assured.

Majestic background of the holy mountain, lovely orange shade of sunset, pleasant breeze in the green open premises of the ashram greeted Jung at the meeting spot. Maharshi Ramana came there walking. This hermit sage used to wear only a *kaupina*. His simple personality was sparkling with the aura of sainthood. His child-like natural smile and the glow of spirituality in his compassionate eyesight were so enchanting! Dr. Jung experienced the warmth of soul-affection in his company. But Jung's rational mind, trained in modern scientific thinking, had its own doubts....

Maharshi Ramana read his mind. With a sweet and soft laughter he explained – "The spiritual philosophy guided by the Indian *rishis* is fully scientific. In the language of

your modern science, you may call it Scientific Spirituality. It encompasses five basic aspects – (i) Inquisitiveness (towards the universe, the self, the soul), which gives rise to what you call 'objective of the research' or 'problem formulation'; (ii) selection of the type of *sadhana* suitable as per one's intrinsic tendencies and mental makeup. In your terminology this would correspond to selection of the approach or method of investigation; (iii) experiments in the laboratory of the mind and body after cleansing and conditioning of the mind-body system. As you know, scientific definition of experiment is – 'an observation of an action under controlled condition'. In spiritual science this 'control' or conditioning is done by penance and ascetic disciplines of self-refinement before attempting the selected practice of spiritual elevation; (iv) vigilance, discipline and examination by the Guru (spiritual mentor) to regularly assess the progress of the disciple. In scientific experiments too you are supposed to verify and evaluate the intermediate results before concluding anything; (v) Inference or concluding decision after thorough analysis. [The *rishis* had first conducted the experiments on themselves and then devised different *sadhana* methods for spiritual refinement and transmutation. Their conceptualization of the divine too was based on time-tested realization.]”

Maharshi spoke (in Tamil with a bout of English) in soft but impressive voice at a consistent pace. As he completed explaining the gist of the *rishis'* approach, Annamalai Swamy, who was acting as an interpreter for Jung, offered

him a glass of water. Maharshi drank it slowly. Dr. Jung was listening to him with engrossed mind. By the time Maharshi completed this short 'discourse', Jung's face was lighted up with inner satisfaction.

Maharshi Ramana got up and started his stroll towards the mountain. Jung also walked with him. I wanted to investigate – “Who am I?”, the Maharshi continued. “For this I chose the spiritual experimental methods of silence, meditation and soul-contemplation. My experiments on my own body and mind are conducted when I am inside the Virupakshi cave of Arunachala”, he said. “With every experiment, newer depths of mind and conscience have opened before me; the subtle layers of otherwise hidden inscriptions/impressions (*sanskaras*) deposited in unconscious mind have got cleansed to allow the pure light of soul-knowledge. Ultimately I have found that I really don't have a separate self-identity; that “I” does not exist. The ego, the self-pride all have disappeared. The soul has unified with that eternal, limitless, omnipresent. There remains nothing to be known or deciphered after this ultimate realization of the soul. The Indian science of spirituality is indeed the science of transformation of a human-self into the divine-self, of absolute evolution of consciousness.”

Dr. Carl Jung took out his spectacles and wiped the glasses. He could really see everything so clearly! Maharshi Ramana's simple explanation had given him new sight to see the science of consciousness, to discover the genesis and existence of the undiscovered self.

He stayed in the Ashram for sometime and then returned back. His experience here had led him to become fascinated and deeply involved with Hindu Philosophy (Indian Philosophy, as realized by the *rishis* of Vedic times), helping him form key concepts of integrating spirituality into daily life and appreciation of the unconscious beyond the barriers of modern psychology.

His new, broadened attitude was clearly reflected in the Terry Lectures on Psychology and Religion that he delivered at Yale University the same year (in 1938) during one of his invited visits to the USA. In his later writings and speeches he emphasized the importance of balance and harmony. He cautioned that modern people rely too heavily on science and logic. He advised that they would benefit more from integrating spirituality and appreciation of unconscious realms.

Several years later, in his foreword to the book titled 'Sri Ramana and his message to modern man' he expressed his reverence for Maharshi Ramana in these words – “Sri Ramana is a true son of the Indian soil. He is genuine and, in addition to that, something quite phenomenal. In India he is the whitest spot in a white space. What we find in the life and teachings of Sri Ramana is the purest of India; with its breath of world-liberated and liberating humanity, it is a chant of millenniums...”

Indeed, Maharshi Ramana's teachings are like globally shining lighthouse for the seekers of scientific spirituality.



Gayatri Mahamantra The Origin of Scientific Spirituality

06

“Gayatri mantra is the origin of scientific spirituality. It encompasses both the principle as well as the method of application of scientific spirituality.” - Saying so, Yugrishi Pandit Shriram Sharma, Acharyaji looked at the audience. His eyes had the keenness of a visionary as well as the calmness of inner feelings. This was a meeting of intellectuals. About 150 people were present. Volunteers from Raipur had organized this meeting at Ravishankar University. Raipur is now the capital of Chhattisgarh state. In 1968 this entire region was a part of undivided Madhya Pradesh. Though the whole of humanity was his own, Param Pujya Gurudev had a special affection for the Chhattisgarh region. Occasionally, during intimate discussions he used to say that Lord Ram had been bestowed with maximum love and affection by the residents of this very Dandakaranya region. In this era again, Shriram used to feel that the people of this entire region were very close to his heart.

Whenever they would call, he would certainly go to Chhatisgarh. During the winters of 1968 volunteers from Raipur and nearby region had organized this special meeting with intellectuals in the university campus. They had also invited Swami Atmanand, Head of Swami Vivekanand Ashram of Ramakrishna Mission at Raipur for this meeting. Swami Atmanand was very dear to Pujya Gurudev. Whenever he visited Raipur region he would certainly meet him. Atmanandji had also visited Gayatri Tapobhumi once or twice on Gurudev's invitation. Swami Atmanand was basically a resident of Chhattisgarh. He was born in the village of Barbanda located one mile from Mandhar. For most of his early life he lived in the village of Kapsada in Raipur district. He received his higher education at Nagpur University. A notable fact about him was that he had earned first rank in both M.Sc. as well as IAS examinations. Even then he chose to relinquish his worldly achievements and accepted the path of austerity and social service by taking initiation into *sannyasa* at Shri Ramakrishna Mission. Two of his highly educated brothers also had followed in his footsteps.

Yugrishi had a deep regard for Swamiji's inclination towards renunciation and service. He also had a liking for his deep interest in scientific spirituality. In this special meeting Swami Atmanand was sitting alongside Yugrishi on the dais and was carefully listening to him. Yugrishi was saying, "Gayatri Mahamantra contains alongwith "Om" three *vyahriti's* (*bhuh, bhuvah, swah*), three steps (*tat saviturvarenyam, bhargo devasya dhimahi, dhiyo yo nah*

prachodayat), nine words and 24 letters. In this amazing *mahamantra* the entire science of absolute existence of the Supreme Soul, physical elements of nature and creation of the universe by their union, is interwoven in the form of a blueprint. Formula in this mantra is just like the formulas of physics, chemistry or mathematics, but it is much more important and valuable. It contains not just the science of creation and the science of entire universe but also science of the soul and that of its refinement and upliftment through *sadhana*."

The entire audience was listening attentively to Yugrishi's discourse. In his voice was assimilated the vast experience of Gayatri *Sadhana* that he had conducted over a long period, as well as the radiance that he had attained through penance. He was saying 'Om' is the Supreme God. Nature that has three worlds - *bhuh, bhuvah, swah* - and three *gunas* (characteristics) - *Sat, Raja, Tama* - gets enlivened by uniting with 'Om' and expresses its 23 elements. The twenty four letters of Gayatri mantra point towards the fundamental Nature and its 23 elements namely, *Mahat-tattva* (the basic principle or the cosmic intelligence), *ahamkar* (the sense of individuality or ego), five *Tanmatra*'s (the objects of the five senses of sound, touch, form, taste and aroma), mind, five *Mahabhuta*'s (the five gross elements: earth, water, fire, air, and ether) and the ten *indriya*'s (five senses of perception: organs of the hearing, touching, seeing, tasting and smelling, and five senses of action: the mouth, the hands, the legs, the genitals and the excretion organs). *Sankhya* philosophy has also expounded this truth. This philosophy

explains all the secrets of creation of universe in the form of formulas, which is nothing but an exposition of Gayatri Mantra in another form.”

All these statements of Acharyashri were very profound, but within them was resonating the entire science of the physical manifestation that is included in the Gayatri mahamantra. Now he began to talk about the science of the soul which is also included within this mantra, “Om is the Supreme God and the ultimate truth that pervades *bhuh*, *bhuvah*, *swah* i.e the physical body, *prana* (the life force) and mind. To experience and express the presence of the same, a seeker has to refine the three steps of Gayatri, namely, thought process or the thoughts, character or the feelings and emotions, and behaviour or the actions. For this he needs to cultivate nine qualities that are indicated by these nine words of the mantra: (i) *Tat* – science of living, (ii) *savituh* – gaining energy, (iii) *varenyam* – superiority of thoughts and actions, (iv) *bhargo* – purity of mind, (v) *devasya* – divinity in attitude, (vi) *dhimahi* – good qualities, (vii) *dhiyo* – discretion, (viii) *yo nah* – self-control, (ix) *prachodayat* – service. Then the 24 subtle nodes of energy in human body get awakened which are indicated by the 24 syllables of Gayatri mantra.

“Supreme God then expresses Himself within the *sadhak* of Gayatri mantra in the form of (1) success, (2) bravery, (3) sustenance, (4) upliftment, (5) union with God (6) love, (7) prosperity, (8) brilliance, (9) protection, (10) intelligence, (11) power to suppress the wrong, (12) faith, (13)

concentration and retention, (14) life force (*prana*), (15) self-restraint, (16) penance, (17) far-sightedness, (18) awakening, (19) production (or reproduction ??), (20) simplicity, (21) faith in ideals, (22) courage, (23) discretion and (24) service. Explaining the essentials of science of the physical world and science of the soul, which form the scientific spirituality that is incorporated in the Gayatri mantra, he said, "This is possible only when the three elements of working process of scientific spirituality, which are presented by the three steps of Gayatri mahamantra, namely, (1) intense curiosity, (2) flawless application, and (3) detailed and comprehensive analysis of results, are properly followed."

Thus concluding his talk Acharya-shri returned to his seat on the dais. The organizers then requested Swami Atmanand to say a few words to the audience. Swamiji rose gently. He looked at Acharya-shri, paid his obeisance by joining his hands together, and said, "First of all I pay obeisance to 'Lord Shriram' who has returned to know the well-being of all of us residents of this Dandakaranya land Chhattisgarh." This statement full of emotions evoked an unprecedented applause from the audience. Then he said, "I have read Gayatri Mahavigyan written by Acharya-shri, but an opportunity to understand Gayatri Mantra in the context of scientific spirituality I have earned only today." Saying so he paused for a moment or two, and then continued, "I am a very regular reader of Akhand Jyoti magazine. I have read very attentively the three articles published in the column '*Apno Se Apni Baat*' (My thoughts

for those who are mine) published this year (1968) in the months of July, August and September titled: (1) We shall Expound Spirituality at a Logical and Scientific Level, (2) Steps Taken in the Direction of Expounding Scientific Spirituality, (3) Scientific Spirituality and Support of Intellectual Members of our Family.

"In the article titled 'Steps Taken in the Direction of Expounding Scientific Spirituality' published in August, Acharya-shri has written - 'In the last twenty years science has made a very rapid progress and it has also moved forward towards acceptance of spirituality. If this sequence of progress continues then in the next fifty years spirituality and science would come so close to each other that their union and association would no longer remains a dream.' To these words of Acharya-shri, I would also like to add a few of mine and say that Acharyaji is a great *rishi* and words of a *rishi* can never be wrong. Whatever he has forecasted to happen after 50 years would definitely happen by 1968+50, that is, by 2018. I would probably not be alive till that time, and may be Acharya-shri may also choose to wrap up his activities for this incarnation, but all living human-beings of the world would definitely be able to watch his vision for the future and the new era take concrete shape. Definitely then the truth of scientific spirituality would begin to take shape in the gross laboratories of scientists and subtle laboratories of *rishis* together and at the same time."

Yagya-Shala

The Laboratory of Rishis

07

Maharshi Yagyavalkya was expounding the hidden secrets and intricacies of the science of *yagya* to the resident students of his Ashram (hermitage). Maharshi Yagyavalkya was a great scientific researcher of the science of *yagya*. He had spent a very long time conducting comprehensive and intensive research in the field of science of *yagya*. For this purpose he had established his ashram in a perfect natural piece of land in the state ruled by King Janak, who was respected by all kings and rishis alike. His ashram was spread over a large expanse of land. There were several small and large *yagya-shalas* where research activities were carried out regularly. These *yagya-shalas* had a large variety of *yagya-kunds* of different shapes and sizes. There were kunds with several shapes like that of triangle, quadrangle, hexagon, with hundred sides, with a thousand petals, like an earthen pot, circle and so on, and of multiple sizes and dimensions. There were some *yagya-shalas* that had no kunds, but only different types of instruments for experimentation and testing.

This ashram of The Maharshi had a large expanse of herbal garden and a dense jungle as well. Almost all varieties of herbs were grown in the garden, which were used during different scientific procedures of *yagya*. The dense forest had protected trees of several different species, whose wood was used for various scientific experiments of *yagya*. In its expanse the ashram also included agricultural fields where the effect of *yagya* on varieties of crops were scientifically experimented and studied. Maharshi used to regard all the animals and birds that lived in the garden and forest as inmates of the ashram. He used to say that *yagya* is not just for humans, not even for the earth but for the entire creation, so everyone must participate in it and get benefited by it.

There was also a reserved portion of the Ashram where several protective and destructive *yagyas* used to be conducted to subdue demonic elements that disrupted normal harmony of the world and caused destruction of life and property. This work was managed by Rishi Kathak, who was a devotee of Rudra and was himself bestowed with the radiance of Rudra. Demonic powers were scared of him as he was a nemesis for all the disruptive powers. Despite his great strength he was gentle at heart and had a noble personality. He had been a close associate of Maharshi Yagyavalkya for a very long time. This time too he was sitting next to Maharshi. Rishis Dirghatama, Kutsa, and Grutsamada were also there, who had come to the ashram bound by Maharshi's love towards them.

All these rishis always used to say that the company and proximity of this great knowledgeable yogi, who was a great scientist of *yagya* science, was rare and purifying. Maharshi was presently explaining – “Every act of social service is *yagya*. All acts that have no tinge of selfishness or ego, which are inspired and carried out with this pure feeling that - this is not mine, nor for me, but for the good of all - such acts are all *yagya*. Supreme God Himself has created this world with the purpose of *yagya*, and to inspire people to carry out acts like *yagya*. That is why He is called the greatest among those who perform *yagya*, and is *Yagya-Purusha* - personification of *yagya* Himself. But even then the physical act of *yagya* (offering oblations to sacred fire) is a great science. Several of its experiments are carried out in the external and the inner worlds through physical rituals and subtle activities.

“There are in all twenty-one different forms of these *yagyas* as mentioned in Rig-Veda hymn (10:52:4) but infinitely many more sub-forms as well. Saying so, Maharshi paused a bit and thought for a while and said again that in a *yagya*-based experiment both physical and spiritual powers are utilized in a harmonious, balanced and most optimal manner. For generating different amounts of physical energies (heat) different kinds of wood like that of mango tree, oak tree, wood apple tree, etc are used. Herbs with different qualities are also components of physical energies of *yagya*. The varieties of shapes and sizes of *yagya-kunds* are used to conserve and enhance the power of

yagya. These and many more such components are symbols of physical energies of *yagya*.

"For spiritual powers the important elements of *yagya* experiment are – different types of mantras, various ascending and descending cycles of their recitation, and the subtle energies of the spiritually elevated *sadhaks* who participate in the experiment. A perfect balance and coordination between the physical and spiritual powers are then created by the special auspicious moments that fall on different days and times, and by utilizing the prevalent energy flows of the universe for making the experiments extremely potent and successful. Herein lies the secret of environment cleansing and formation of rain clouds through *yagya*."

The deep and subtle exposition of science of *yagya* made by Maharshi Yagyavalkya was mesmerizing the audience. Only once in a while, curiosity about inner-*yagya* would flash in the mind of Rishi Grutsmada.

The great yogi and visionary Yagyavalkya smiled briefly and said, "Just like the external form of *yagya*, the experiments of internal *yagya* are special. If these are carried out in a proper manner, they lead to extraordinary increase of spiritual energy." He paused for a while and continued, "Our existence and our personalities are themselves like special *yagya-kunds*. Just like physical kunds, we have three steps (*mekhla*s) in the form of mind, life-force (*prana*) and body. The first step is that of mind

which creates, based upon resolves and its main deity is Brahma (creator). The second step is the life-force that helps in sustaining life and its main deity is Vishnu. The final step is the physical body that through its good and bad actions, presents the benevolent or the destructive form of Lord Shiva. A verse from scriptures describes the participants of this best form of *yagya* experiment in the following way - In this spiritual *yagya* - soul is the main doer of *yagya*, faith is its wife, heart is the altar, the top knot of hair is the scriptures (Vedas), voice is the *hota*, life-force is the *udagata*, eyes are the *adhvaryu*, mind is the Brahma, ears are *agnindhra* and mouth is the invoked fire. In this special *yagya*, the supreme flames of *kundalini* accept the oblations of *sanskars* (intrinsic tendencies) and provide the soul the status of Supreme Soul." This statement of Maharshi gave a sense of deep fulfillment to Rishi Grutsamada, but Maharshi continued further, "In these scientific experiments of *yagya*, Vedic seer and great rishi of Scientific Spirituality, Vishwamitra is a much greater expert. It would be highly pertinent to understand his conclusions in this regard."

Vishwamitra's Super Experiment of Savitri

08

Vedic seer of scientific spirituality, Rishi Vishwamitra, was engrossed in a very special and super experiment those days. For last few years he had completely gone into seclusion. He had almost stopped speaking as well. He would use his voice only for very essential recitation of mantras on only some especially important occasions; for all other needs he would simply make do with gestures and signs. With the warmth and energy of the super-experiment that he was conducting, every bit and particle of the ashram had begun to glow and effuse the same. Maharshi Vishwamitra had spent his entire life in conducting innumerable spiritual experiments of *sadhana* and *tapa*. The sixty-two *suktas* of the third *mandal* of Rig-Veda are testimonies of these experiments. The tenth mantra of the sixty second sukta of the third *mandal* of Rig-Veda is the very renowned Gayatri Mahamantra. With this Gayatri mantra, its seer Vishwamitra, who was a superbly evolved sage with great supernatural powers, and who had a perfect understanding of subtleties of more than a thousand

different *sadhanas* of this mantra, had earned a very wide recognition and fame.

But to him what was dear was service to society and not fame and recognition. Only because he had completely dedicated himself to activities beneficial for the world, he had earned the name of Vishwamitra (meaning friend of the world). Earlier he used to be the mighty – King Vishwarath, but since the time he realized the grandeur of spiritual energy and prowess attained through spiritual disciplines during his association with Brahmarshi Vasishtha, he renounced his kingdom and all his worldly responsibilities and devoted himself to spiritual experiments. Now even Brahmarshi Vasishtha would not tire of singing paeans of his great penance and social service. That is why he had encouraged and persuaded King Dashrath to send Ram and Lakshman in the service of Maharshi Vishwamitra. At that time too Vishwamitra was conducting some important experiments, but that was several years ago. Now King Dashrath was no more. Lord Ram with his wife Sita and brother Lakshman was living in Chitrakut forest. Brahmarshi Vasishtha was giving protection and guidance to Prince Bharat in Ayodhya.

Here Rishi Vishwamitra had initiated a novel experiment in his famous ashram. Before launching the experiment he had called upon his disciple Jabali, son Madhuchchanda, and grand sons Jeta and Aghamarshan and told them that the challenges they were facing now were much more daunting and serious than the earlier ones. The focus was

no more on terror perpetrated by the likes of Marich, Subahu and Tadka (the demons who had been killed by Ram-Lakshman under the guidance of Vishwamitra earlier) or the protection and security of a particular region, but that the existence of the whole world was in danger this time. All the demonic powers were carrying out deadly and destructive experiments everywhere. All of them needed to be defeated together. Not only that to create the right circumstances for ushering in Satyug in future, large-scale changes will have to be brought about in the entire animate and inanimate Nature. This would happen only when *kundalini* (the dormant vitality) of the entire world got awakened.

“Awakening of world *kundalini*” - these words amazed and excited not only young Jeta and Aghamrshan but also the more matured Madhuchchhanda and Jabali. Both of them had intimately associated with the Maharshi in all his experiments over a very long time. Maharshi disregarded their wonder and excitement and continued, “For this we need to agitate, stir up and alter using the power of the sun, kundalini of the earth which exists in the form of geomagnetic flows between its North and South poles. What is essential for this is collecting and harnessing of huge amounts of Sun's subtle power and then channelizing and transmitting it. This is an extremely difficult task but not impossible. For this purpose, I will use the Savitri aspect of this great science of Gayatri.”

"That would mean a coordinated use of the left oriented Brahmastra, Brahmashiras and Pashupat of Gayatri and may be much more than that ... !" – This thought arose in the minds of Jabali and Madhuchchhanda almost simultaneously. Their thought vibrations touched somewhere the inner consciousness of the Maharshi. He spoke, "You are right. For protection of the entire creation I shall definitely launch this greatest scientific experiment. All the bases for harmonizing inner consciousness with Sun's consciousness would be created by this only. Savitri is universal. It would cast its influence over the entire world and over all the living beings. This would diminish the *tamsik* element and enhance the *sattwic* element everywhere in the world. This would result in pleasant changes in the inner beings of all creatures as well as the environment. Destructive powers would be destroyed and creative powers would be reinvigorated."

"What will we have to do, O Great One?" asked all those present to ascertain their duties. In reply Maharshi said, "You all will have to perform your duties with great resolve in these difficult times. Jabali will act as my personal assistant for this tough task. Madhuchchhanda would maintain subtle contact with Brahmarshi Vasishtha who is doing *tapa* at Ayodhya, with Brahmarshi Atri who is doing *tapa* at Chitrakut and with Maharshi Agastya who is performing his deep penance at Vedpuri in far south, and would keep providing me with their guidance and indications from time to time. Brahmarshi Vasishtha is currently preparing a group of 100 great *sadhaks* who

would facilitate in the world the descent of the atmosphere of Satyug and Savitri power. Maharshi Atri, who is at Chitrakut, has the responsibility to make Ram, Sita and Lakshman capable of holding and assimilating the great power of this experiment. The next person in this sequence is Maharshi Agastya who would create several extraordinary and divine weapons using the power generated by Savitri experiment and provide them to Ram at appropriate time. All these activities will be carried out at the same level simultaneously. Though we all will be with each other at the level of consciousness, but due to our involvement in our individual experiments, once in a while this contact may get lost. So Madhuchchhanda will have to be ready to maintain this contact. Jeta and Aghamarshan will support their father in this task. My divine vision tells me that this great *sadhana* of Savitri would definitely become successful and the circumstances of Satyug would be created and propagated on the earth."

History is testimony that due to this super-experiment of Savitri, Kingdom of Ram could get established and the rule of Age of Truth could be ushered in.



The Exponent of Law of Karma Rishi Vishwavara



Rishi Vishwavara - a great exponent of scientific spirituality - was conducting research on the law of karma. The research work of hers was being conducted at all levels - sensual perceptions, intellectual analysis, inner intuition and knowledge attained in the state of *Samadhi* (when all the vacillations of the mind-field are at complete rest). Physical scientists (as against spiritual scientists) conduct research normally using only their sensual perceptions and intellectual analysis. To attain deeper insights into the laws of the physical world, they at times, use instruments like microscopes or telescopes to aid sensual perception further, but beyond this they have no reach. In contrast, spiritual scientists, in addition to physical instruments and intellectual capability, also make a positive and proper use of the inner knowledge and knowledge attained in the state of *samadhi*. As a result, not just the gross matter and gross energies but the inner mysteries of Nature open up to them layer-by-layer, stage-by-stage. This indeed is the true comprehensive method of research.

Vishwavara was an expert in this process. In terms of age she had just entered her youth. She was fair complexioned, tall and slim, and had a gentle face with eyes that simultaneously radiated both simplicity and brilliance. Female progeny of the rishis and kings and even those of gods would regard her as an exemplary beauty. But still she had no interest at all in sensual gratification. Maharshi Atri and Devi Anusuya were not her parents but she had received a lot of adulation and affection from them. Under their protection and guidance she started leading an ascetic life and at a very young age became the seer of six *richas* of 28th *sukta* that belongs to the second *anuvak* of the fifth *mandal* of Rig-veda. Thereafter, as inspired by Devi Anusuya, she started her research work on the law of karma. Not too far from Maharshi's ashram was her hut on the banks of River Payaswini, where she devoted herself to arduous penance and continuous study and research.

Her intense research had led her to understand that the effects of regular, casual activities are only of a temporary nature, whereas effects of karmas linger for a long-time, sometimes for many lives. Normal activities are not associated with any intense desires or resolves. So they do not create any lasting imprint. However, in karma, desires, emotions, inspirations from intrinsic tendencies and intense resolves are prime. So karmas are not just those that are done by self but also those that are carried out by others which have our consent and support. All the three forms of karmas – done by us, done through others, and those supported by us – all produce definite results.

Vishwavara had learnt through experience that in whichever life-forms the soul is not able to have desires or make resolves, all the activities carried out by it cannot become karma or result in karmic-ties. All activities in these life-forms show instantaneous effects and subside. For example, the activities of flies, mosquitoes, insects, birds, and animals, and at a subtler level, that of ghosts and spirits, fall in this category. All such life-forms where only activities take place and karmas are not created are called as *bhog-yonis*. Soul wanders in these life-forms to fulfill the needs of *prarabhdha* (karma whose effects are imminent and unavoidable), it cannot make any new karmas there. However, in human life-form the Law of Karma is extremely complex, subtle and deep. Here, the effects of *prarabhdha* karmas are also faced and new karmas too are created. This experience of Vishwavara was founded on her observations of multifarious activities that go on, on the levels of matter as well as consciousness in the expanse of Nature.

When she presented her conclusions, Mother Anusuya smiled and looked at Surya-Savitri and Havidhani. Both of them had only some time back come to meet her. They also had heard Vishwavara's findings and were impressed by her conclusions. But Vishwavara was very eager to listen to Mother Anusuya's special comments on her research. Watching her eagerness closely Mother Anusuya said, "Dear daughter! Activities take place only at gross level whether that be through material or physical body. But karmas take place both at the level of matter as well as

consciousness. Even then there is an important difference between lives of common people and that of rishis and yogis. Normal people have to act in accordance with their desires and only then their karma is complete, but in the case of rishis/yogis, a mild wave of positivity or negativity that arises in their thought-consciousness becomes an incident in the outer world on its own. So the thinking processes of such people are also regarded as karma and the law of karma also becomes applicable to them."

This statement of Mother Anusuya brought forth a completely new dimension of thought which compelled Vishwavara to begin thinking again. She asked, "Mother, if normal people cannot act according to their desires due to circumstances, but keep thinking in a positive or negative manner willfully, what would happen then?" Mother replied, "Daughter, you have asked a very meaningful question. In that case their negative and positive thoughts, according to the depth of the associated emotions, would create impressions on the mind. These impressions in the future definitely create circumstances that would lead to fulfillment of karma and then these karmas would have good or bad results."

"What is the process that leads to fructification of results of karma?" This question was asked by Havidhani. He was listening to all the conversations very attentively. Mother explained, "The process of fructification of results of karma only establishes the Law of Karma. Actually each karma has three components - (1) actions, (2) thoughts-

through which plans for execution of karma are created, and (3) emotions – according to the depths of which resolves get strengthened. Every karma first sprouts in the field of emotions and becomes a resolution, then plans are made in its accordance and then actions take place. Each one has its own level of energy in these three stages. Once an action (karma) is carried out these energies on all the three levels get inscribed on the mind in the form of seeds of *sanskars*. These accumulated *sanskars* then, according to their intensity transform into matured *prarabhdha* and then it becomes imperative and definite for one to bear its effects.”

“Is it possible to do karma without any karmic fruits or ties?” So asked Surya-Savitri who was listening attentively. Mother Anusuya replied, “This is possible when all the necessary actions are carried out to fulfill one's duties, but with that there are no associated desires, emotions, or resolves. The sentiments associated with actions are like this - 'Every deed I do is my oblation in the sacred fire of yagya to the Supreme Soul'. All actions that are bereft of any worldly desires or feelings, and are carried out with true feelings of 'This is not mine' never result in any karmic-ties, even though they would certainly cast some immediate effects.” These expositions by Mother Anusuya opened new dimensions of research for Vishwavara.

A Rishis's Unique Approach to Worship: Research for Social-Welfare

10

Maharshi Atharvana was among the noted *rishis* of yore who added new dimensions to applied research in Scientific Spirituality. He was blessed with multifaceted talents of a scientist, philosopher, spiritualist, scholar, poet and a master mystic. The area of his research was unique — it delved into the subliminal relationship between matter and energy fields of consciousness force. He experimented on transformation of consciousness-energy vibrations into matter and extraction of consciousness-energy hidden in the subtle particles of material elements.

Accomplished experts of his time advised him against this peculiar line of investigation considering that a *rishi* of his level, who had realized higher realms of spirituality, should not spend time and efforts in researching material elements.

He was revered all over the world; mightiest emperors of the globe at that time used to bow before him with deep

reverence. What was the need for him to spend time in this kind of research? Certainly he too, like all other *rishis*, had no worldly desires, no aspiration for recognition, reputation or respect. No horizon of Nature, or nothing perceivable or subtle was beyond the reach of the *rishis* of his level. No field of knowledge was outside the domain of their grasp. All their endeavors, all their deeds were dedicated for noble mission of enlightening others. Maharshi Atharvana's research was motivated for social service at a more grass-roots level.

Altruistic service appeared more important than soul-evolution and salvation to this great *rishi*. All beings were dear to him. His actions were aimed at allaying ignorance and agony. Sufferings and sorrows of others used to touch his compassionate heart and moist his eyes. His Ashram was located in the thick forest along side the river Madhumati. The forest itself appeared to be a part of his Ashram, as the small hutments of hermits and his disciples, cottages for class-rooms, *yagyashala*, etc were distributed in different directions beneath or surrounded by trees, without disturbing the natural grandeur and richness of the forest. Residents of the nearby villages used to call this place as Atharva Ashram. His hermitage, in which he used to stay with his daughter Vatika, was on the banks of the river Madhumati so that the villagers could reach there easily. His daughter too was an ascetic and his disciple. She was also carrying out experiments with other researchers there as per his directions.

As it was like a worship of God for him, Maharshi Atharvan had named his field of research as "*Rishi Archana*" (meaning: Prayers offered by a *Rishi*). Considering that the principal aim of this research was social welfare – to allay the sufferings and pains of others and to work for their well-being, he and his disciples had adopted "*Rishi Archana se Loka Vandana*" (meaning: Social-worship through *Rishi Archana*) as the main *mantra* of their lives.

Though age-wise he was old, Maharshi Atharvan's physical strength, vital-energy, enthusiasm, industriousness and mental sharpness were like those of a vibrant youth. He was the source of live-guidance and inspiration for his disciples. His daughter Vatika had also dedicated her life to help him accomplish the noble mission of social welfare.

This great *rishi* had discovered that subtilization of particles of matter releases immense energy and also emits vibrations of consciousness-force indwelling in it in sublime forms. He successfully experimented to verify this fact using his spiritual power. He also found and demonstrated that superposing of specific energy waves can give rise to specific kinds of matter. Not only that, in several cases he also identified most suitable *muhurtas* (timings in terms of astrologically important positioning of planets, stars, etc) for optimal effects in such experiment.

Through his dedicated research in this field – pertaining to unified nature of matter, energy and consciousness force – of scientific spirituality, he concluded the following. If carried out in specific *muhurtas* deploying devout *sadhanas* of specific *mantras* with unperturbed determination, an otherwise impossible or tedious experiment of decomposition and subtlization of matter into energy and vibrations of consciousness force could yield quick results. In his views some such *siddha muhurtas* for specific *sadhana* experiments are such that the latter's auspicious effects that would be normally achievable in a year's time could be realized only in a few days. He regarded doing *yagya* (fire ritual) experiment in a *siddha muhurta* as the best mode of subtlization and sublimation of natural substances (esp. herbs, plant medicines and some nourishing grains, dry-fruits and milk products) for energy- generation, environmental purification and psychological upliftment.

The material units used in his experimental research mainly consisted of plant medicines, gems and pearls, and *mantras*. Related experiments were also conducted at his gurukul-laboratory and at different places on different species of plants, soil and water samples, and some selected metals and non-metal substances. Although all his disciples were sincerely conducting research experiments of these kinds under his able guidance, most notable contributions were made by Kratu, Kautsa, Bhargari and Vatika. These researchers, like the *rishi* himself, were engaged in *sadhana* experiments round the clock without even caring for essential food and rest. The

long-term collective hard work of all of them had finally fructified in incredible findings.

This research had also shown that irrespective of their atmospheric environment, different places and different ambiances have different (sublime) energy fields. The impact of specific *muhurtas* may also vary accordingly. So, a right combination of place and a *muhurta* would give the best results.

This research work had also deciphered that every entity of Nature — animate or inanimate - has its own specific quality. Depending upon its atomic constitution and energy fields and consciousness level it receives and absorbs compatible effects of the infinite energy currents pervading the cosmos. Maharshi Atharvan and his research team had also found that the receptivity to consonant effects (matching frequency) is exceptionally high on some special *muhurtas*, as the level of vital spiritual energy is extraordinarily higher than its normal flow in any substance, plant or creature during these time-periods.

For example, *Ravi-Pushya Guru-Pushya*, (rising phase of “*Pushya*” star on a Sunday or Thursday), *Somavati* or *Shanivasriya Amavasya* (no-moon phase on a Monday or on a Saturday) are some such special *muhurtas*. Determined efforts with full preparation and strong willpower could give exceptionally beneficial outcomes during these time

periods. Miraculous achievements are possible by execution of spiritual experiments, empowered with suitable *mantra-sadhanas* during these special phases. For example, during these special *muhurtas*, expert spiritual scientists may awaken sharp intelligence in a dullard brain; may heal an otherwise incurable patient and relieve him of the dreaded disease; may bless poorest of the poor with a fortune that will make him affluent in a short time.

Maharshi Atharvan had, with the assistance of his disciples, obtained thousands of such results and verified and applied them several times. Making use of these findings, his team had offered enormous help to the masses in the nearby as well as distant villages. No disease or adversity was incurable for them. Their *mantra*-powered plant-medicines, gems and spiritual healing had the potential to uproot all illness, infirmities and negativities. They had also helped the mentally retarded ones to sharpen their skills and intelligence. The downtrodden, weak, helpless and needy ones used to see them as saviors. These pursuers of "*Rishi Archana se Loka Vandana*" had also offered other kinds of social services like eliminating psychological complications and misunderstanding between married couples, neighbors, friends, etc, and creating social harmony, motivating the masses for cooperation and collective progress, etc.

With successful expansion of this altruistic 'spiritual science research-cum-social welfare' mission, not only the "*Atharva Ashram*" but also the entire forest region around

it became like a healing-centre, a temple, a pilgrimage, for the masses in the villages, towns spread across almost the entire *Aryavarta* (the land of the Aryans – ancient India).

However, there were critics too. Some prosperous and talented ones including some accomplished scholars used to feel that Maharshi Atharvan had deviated from his appropriate path of *sadhana* and is not fulfilling his duties as a *rishi*. In their views a *rishi* being a supramental yogi and spiritual sage should remain engaged in the *sadhanas* of ultimate soul-realization and salvation. They held that making use of spiritual attainments for solving worldly problems of the masses or deploying Nature's sublime powers for the welfare of ordinary mortal beings, was a diversion from the path of divine enlightenment. Some of them even expressed the opinion that he should no longer be respected as a "Maharshi", etc. But Atharvan being a "*Maharshi*" (great *rishi*) in the truest sense of the word knew what the righteous path was for him. He used to ignore the critics with a modest smile.

He was least bothered about whether someone respected him like a *rishi* or not. To the curious ones he would politely explain that his research efforts were for "*Rishi Archana se Loka Vandana*" saying that he is born to do his level best for the welfare of the entire world, for all beings. His disciples were also humble and duty-bound like him. For them the real path to ultimate light and salvation was what their revered guru had shown them.

Maharshi Atharvan and his disciples analyzed the sublime nature of plants, humans, animals, and experimented on the energy in the subtlest core of matter, and deciphered the vibrations of unified force of consciousness pervading the visible and invisible realms of Nature. They discovered the optimal times and combinations with respect to maximal positive impact of celestial arrangement of stars and cosmic energy fields and invented the modes of making constructive use of these in consonance with Nature. It was the spiritually evolved vision of Maharshi Atharvan that made all this possible. His devout *sadhanas* and illumined wisdom enabled him realize the transcendental knowledge of the “Atharva Veda” More than half of the nearly six thousand hymns in this Veda are grasped and elucidated by him. The multiple dimensions and noble purpose of spiritual science achieved and shown by him stand as marks of eternal beacon-light for every researcher of scientific spirituality.



Experience and Expression of Conscious Forms of Energy

11

Rishi Vaak, the scholar of “scientific spirituality” was seated on the banks of river Kaushiki and performing her *Sandhyavandan*. Though evening had set in, there was some more time for it to become dark. Sun had traversed to the western rim of the horizon. The hues of setting sun were seen amidst the clouds that were spread in the sky. The flow of river Kaushiki was at times slow with the waves falling mildly while they were fast at other times. The low peaks of the surrounding mountain ranges were standing as though aware of what was happening, while the trees were expressing their joy by shaking their branches. Rishi Vaak was chanting the 24-syllable Gayatri Mantra and was doing research on the primordial Mother and her various forms of expression.

By the time, she came out of her meditation and completed her mantra *japa* after *Suryopasthan*, the clouds had become denser. The winds began to blow fiercely. The water in river Kaushiki was flowing at full speed. The winds were creating intermittent tides in the river. When Vaak got up

after finishing her *sandhyavandan*, her attention shifted to the clouds that were spread in the sky, the wind and towards the water flow in river Kaushiki. At that instant, there was a loud thunder followed by lightening. It was as though Lord Shiva twanged his bow and was getting ready to annihilate the evil *asuras*. She kept standing there and was witnessing the entire scene in astonishment.

While witnessing these scenes, several questions rose in her mind at the same time – what is the secret behind thunder? How do both sound and light emanate from electricity? What increases the speed of wind and water flow? Her mind was crowded with these questions just like the external sky that was covered with dense clouds. By this time, it had begun to rain. The ashram in which she lived along with her father, Maharshi Ambhruna, was nearby. Since she lost her mother during the time of her birth, her father donned the role of mother also. In addition to being both a father and mother to Vaak, he also shouldered the responsibility of being her teacher and Guru. She was a worthy daughter of her illustrious father. She had set an example to others with respect to austerities, noble *samskaras*, good behavior, service, diligence and untiring zeal to learn. The *Acharyas* of *Gurukuls*, guides of *sadhaks* and parents of *rishikanyas* used to ask their students and daughters to consider Vaak as their role model.

When Vaak reached the ashram premises, she found her father Ambhruna standing at the door step. He noticed that his 16-year old daughter was tired and lost in thought.

Owing to his intuition, it did not even take a moment for him to figure out her mental state. He realized that his daughter was weighed down by questions. He very lovingly told her – “Daughter, go and change into dry clothes and drink something warm. After that, we can sit and talk.” Vaak followed her father's instructions and in a few minutes they met at the library. The library housed several books on vedic and other literature. Both father and daughter were seated facing each other. Rishi Ambhruna then smiled and said, “The answer to all your questions lies in one word – *Shakti* (meaning energy). Energy exists in both active and passive forms.”

“Scientific and spiritual techniques are employed to activate the passive forms of energy. Remember that there is no atom present in the universe which is devoid of energy. Various forms of matter, though they look inert, are active in the form of inner atomic energy. This is visible in the form of light, sound, electricity, magnetism, gravitation, wind, hydro- and bio-energy. The atom which is assumed to be insignificant contains enormous energy in its nucleus. The important point to be understood is that energy is always conserved; it can only be transformed from one form to another.”

Rishi-daughter Vaak was listening to her father attentively. Her father was speaking in affectionate tones thus – “Till now I have discussed only the material or physical forms of energy. There are also other subtle and conscious forms of energy. I shall tell you a great secret of

the occult world, which physical scientists may or may not discover in due course of time. Everyone is aware that atomic division leads to fission which releases energy. Similarly the expression of various forms of *pranic* energy like mental energy, emotional energy and spiritual energy is also possible on similar lines. In the inner realms this is experienced as awakening of *Kundalini* and its upward movement. Those who understand the manifestation of these *pranic* energies in physical world are capable of creating anything. Of course, this capability lies with only a few awakened souls."

"Father, what is meant by capability or strength?" asked Vaak in a thoughtful but soft tone.

"Strength is defined as the capacity of the energy to manifest. Be it animate or inanimate, Nature or *Bhagwati Adi Shakti* has bestowed them with a certain capacity based on the organization of their atomic or life particles. This capacity can be enhanced not only by several scientific and spiritual techniques, but can also be put to a variety of uses. Just as the energies based on material sciences can be used as electricity, wind power, nuclear power etc, in the same way by using spiritual processes, the *Pranic* energies, e. g. mental energy and soul energy can be used to perform miraculous feats. To understand both physical and conscious forms of energy and to be able to enhance their capability to manifest, it is essential to do the multi-faceted *sadhana* of *Adishakti*."

This narration by her father Maharshi Ambhruna entered the mind of 16-year old Vaak in the form of a firm resolve. She got ready to perform intense penance on the banks of Kaushiki. By the power of penance, several new layers of knowledge related to energy and power began to unfold within her. She began to realize the energy prevalent in the universe and that which is present in herself. She began to experience at-one-ment with those energies. After crossing all the layers and dimensions of knowledge in its various aspects, she experienced the fundamental miraculous flow of energy and began to utter thus -

Om aham rudrebhirvasu-bhischaraamyahamadityairoota vishwadevaih - I am the *Sachidananda Sarvatma Shakti* that expresses itself as Rudra, Vasu, Aditya and Viswadeva. In the 125th *Sukta* of 10th *Mandala* of *Rig Veda Samhita*, there are 8 mantras under the title of *Devi Sukta*; they are the realizations of Vaak.



Scientific Experiments of Lord Buddha Continued all His Life

12

The current of scientific spirituality was automatically flowing in the *Dharma Chakra-Pravartan* (Turning of the Dharma Wheel) of Lord Buddha. For the past some time, he was staying in Jetavan. *Mahasthavir* Revat, *Bhikshu* Mahakaashyap and *Bhadant* Maudgalyayan were also present with him. Anand had unconditionally surrendered himself for the service of Tathagat (Lord Buddha) and hence he accompanied the Lord everywhere as his shadow. The presence of Tathagat was like a magnetic light to all spiritual seekers. It was a light which had both attraction and magnetism. Spiritual seekers would come in large numbers to listen to his words of nectar. Tathagat also showered them with grace and care. Whenever a seeker came to him, he would generously distribute the light of knowledge to him. On receiving this light from the Master, the seekers used to feel a unique calm and peace.

But, everyone came to him for enlightenment. There were people who came to test his wisdom. There were others who came to argue with him in the name of discussing the

shastras. Some others were interested in religious rituals, traditions and procedure for rituals. Tathagat met all kinds of people and removed their rigidity, misconceptions and antagonism with the light of his wisdom. Whoever listened and understood Buddha got convinced that his teachings resonated with scientific spirituality and his life was a living example of spiritual life. Tathagat showered everyone with his compassionate teachings.

Once he was seated in Sukhasan under a fig tree (*Ashvattha*) in the eastern part of Jetavan. Seated in the front row were Revat, Mahakaashyap and Maudgalyayan. In other rows behind them were seated other monks and nuns. Anand was standing slightly behind him to the right. Tathagat was preaching - 'We have to conduct the experiments of scientific spirituality in the laboratory of life. We have to conduct these experiments regularly for a long time and then continuously assess the results. Based on this you will be able to come to some conclusions which ward off all kinds of grief in your life.' Before the Lord could say anything more, a young monk came from outside and whispered something to Anand. Anand wrinkled his brow on listening to the monk but he maintained his poise and requested Buddha thus - 'Lord! A group of learned Brahmin teachers desire to meet you.' Buddha smiled in reply and instructed that they be ushered in with due respect.

Within a few minutes, those Brahmin teachers were seated in front of Buddha. Tathagat welcomed them with sweet words and enquired about their wellbeing and then said, 'O group of teachers, you can command me.' A senior and old scholar said, 'We have not come here to instruct but to inquire.' Tathagat smiled and said, 'For me, each and every command of scholars like you is worth following.' On listening to Buddha's polite reply, the Brahmins also softened a little. But the egoistic harshness was still lingering within. A senior scholar asked in a raised voice, "What is your opinion about Soul and God? We also have heard that you refuse to accept the Vedas, *Shastras* and the wisdom given by the *rishis*." Buddha replied in a kind tone, "Sir, I do not present arguments based on different thought-streams. I only express my experiences. When it comes to Vedas, *Shastras* and *rishis*, I have always accepted their tendency to experiment. I have myself conducted many scientific experiments in my own life and am continuing to do so in tune with the present era."

He paused for a moment and then continued, "Sri Krishna, the exponent of *Yogavidya* as given in Gita has said –
Yaavaanartha udapaane sarvatah samplutodake |
Taavaan sarveshu braahmanasya vijaanatah | | (2/46)"

"The need of Vedas to a Brahmin, who has experienced the spiritual truth, is as much as that of a small pond to the one who has found a vast reservoir. It means that experience is much more superior to the knowledge compiled in books, even though those books may be Vedas. Hence I feel that it is better not to waste time in futile arguments. Instead we

should share with one another our own spiritual experiences and their results and conclusions.” With these words of the Lord, the scholars of Vedas, *Shastras*, rituals and those who were experts in arguing in *sanskrit*, were left tongue-tied.

Silence reigned for a long time. Then Buddha said in a polite tone – “O scholarly teachers! Spirituality is the experience and expression of this multifaceted human life; an expression of the innumerable powers latent in each and every atom. Dharma is the propagation of simple, easy and empathetic ways of behavior and methods based on these experiences and expressions of human life. Spiritual giants have done this during each era. In the present era, I am doing the same thing.” The scholarly Brahmins felt these words of the Lord like the vibrations of a Mantra. Their ego was washed away in the currents of Buddha's kind and polite words. All of them spoke in unanimous voice – 'Lord, please make us realize the truth of life'

In reply, Lord said smilingly – “Teachers! All of you are scholars. You should know the four noble truths:

“According to my experience, the eight -fold path is to practice and imbibe the following eight virtues in life:

1. Right View. The right way to think about life is to see the world with wisdom and compassion.
2. Right Thought. We are what we think. Clear and kind thoughts build good, strong characters.

3. Right Speech. By speaking kind and helpful words, we are respected and trusted by everyone.
4. Right Conduct. No matter what we say, others know us from the way we behave. Before we criticize others, we should first see what we do ourselves.
5. Right Livelihood. This means choosing a job that does not harm others. "Do not earn your living by harming others. Do not seek happiness by making others unhappy."
6. Right Effort. A worthwhile life means doing our best at all times and having good will toward others. This also means not wasting effort on things that harm us and others.
7. Right Mindfulness. This means being aware of our thoughts, words, and deeds.
8. Right Concentration. Focus on one thought or object at a time. By doing this, we can be quiet and attain true peace of mind.

The state in which all suffering is ended is called Nirvana. Nirvana is an everlasting state of joy and peace. This is the ultimate objective of life."

After saying thus, Tathagat stopped and began to smile benevolently. All the listeners were enveloped in a state of unfathomable peace and bliss.

The Wonderful Syadwad of Lord Mahavir

13

Scientific spirituality was pervasive in the discourses of Lord Mahavir. Theerthankar, who is worshipped in all three worlds, was then present in the Sripadma grove in Nalanda. The omniscient Jain Guru was seated on a mud platform beneath a Kadamba tree. Maidens from nearby villages had applied cow dung to the platform and had decorated it with fragrant flowers. Standing slightly behind him was Pattaganadhar Gautam. His face expressed inner awareness, alertness and sincerity. He was capable of understanding and executing each and every gesture of Lord Mahavir. In the front row were seated ardent *sadhaks* named Sudharma, Siddha Sen, Samant Bhadra, Hari Bhadra, Patra Kesari, Shri Dutt and others.

Amongst them were the emperor of Magadha Bimbsar Shrenik and empress Chelana. Pattaganadhar Gautam had tried his best to convince them to occupy special seats, but they did not agree to it. In reply they told, 'Arya! This is not a court of an emperor where people are given special

importance based on their wealth, status and other attainments. This is the meeting where the Tatvajnani Theerthankar is going to shower his grace. The only virtue that counts here can be nothing other than humility." People of all walks of life were present during the meeting- scholars and uneducated; young and old; men and women. There was no restriction on age, caste, creed or sex. Each and everyone felt that the Lord was theirs, someone who was as dear as their lives.

The words of Theerthankar Mahavir were like a gurgling waterfall that was flowing amidst the peaks of enthusiasm and eagerness. He was telling - "Life is not an illusion. It is in fact the most efficient medium of expression of *Atma* (soul) and *Sarvatma* (Supreme Soul). When the quality and capability of expressing the soul increases, the beauty of life increases proportionally. The completeness in expressing the *Atma* and *Sarvatma* is what defines the beauty of the world. It is in this that one experiences bliss each moment of one's life. The unique media of expression are noble thinking and noble actions. The more we orient towards these two, more will be the bliss and happiness experienced by us. There are five obstacles in this path. The first one is lack of discernment. The second one is lack of renunciation because of which one is entangled in attachment and hatred. The third obstacle is laziness because of which a person does not have the tendency to have noble thoughts and to do noble deeds. The fourth obstacle is mental impurity which manifests itself in the form of greed, anger, illusion etc. The last or the fifth

obstacle is distortions in our thoughts, speech and actions.”

The nice and simple words of Theerthankar were entering the hearts of people and illuminating them with light. He was telling – “The methods to remove all these obstacles are: *Samyak Darshan* – Accepting spiritual laws and experiments wholeheartedly. *Samyak Jnan* – To assimilate the principles associated with those spiritual laws in their entirety. *Samyak Charitra* – According to this, one should mould oneself in accordance with spiritual laws and experiments such that our entire life becomes an explicit definition of spiritual science. In this state, one has the absolute experience of both existence and truth, whereas in ordinary states one can experience something relative to another.”

Sudharma could not completely grasp the meaning of these words. He sought permission to ask a question in the most polite tone and asked, “Lord! Are existence and truth absolute or relative?”

There was a lot of philosophical inquisitiveness behind this question posed by Sudharma. Lord Mahavir was pleased at the question and replied, “Child! Existence and truth are both absolute as well as relative. Understand that existence is nothing but the experience of Truth. Only in highest states of knowledge and in Samadhi can one completely experience the infinite powers of one's existence. Existence and truth are always relative to one

another. This *Sapekshawad* (theory of relativity) is also called *Anekantwad* (polytheism).

Everyone had his/her own deserving place in the vastness of knowledge gained by him through experience. Just beside where he was seated was a mud pot. He looked at the pot, smiled and then asked Sudharma – “Tell me child! Are you able to see this container?” Sudharma replied, “Yes, my Lord!” Theerthankar laughed and said, “This is one aspect of knowledge and understanding: 1. '*Syaat Asti*' (meaning - probably yes). Saying this, he concealed the pot behind his back and then asked Sudharma, “What does your vision say about the pot now?” Sudharma replied, “I am not able to see the pot now.” Mahavir smiled again and said – “Child! This is the other aspect of knowledge that is based on '*Syaat naasti*' (meaning - probably not).

After this he again asked Sudharma – “Child, are you truly confident that the pot does not exist?” Sudharma replied – “Lord! My answer is both yes and no, because though I cannot see the pot, it is present somewhere.” Based on this Bhagwan said – “Child! This is the third aspect which is '*Syaat asti naasti*' (meaning - probably yes or no).” Mahavir again asked, “Can you explain about your experience correctly?” Sudharma said that he could not explain. Theerthankar said, “This is the fourth aspect of knowledge: '*Syaat Avyaktavyam*' (meaning that truth cannot be expressed).” Everyone in the audience found this conversation between Theerthankar and Sudharma very illuminating. Lord was smiling and then he said,

“Sudharma! Are you firm on your opinion?” Sudharma thought for a while and then replied – “Lord! The pot is definitely present somewhere but nothing can be said correctly about it.” Mahavir did not smile now but spoke in a serious tone – “This is the fifth aspect of knowledge which is '*Syaat asti cha avyaktavyam*' (meaning that the truth exists but it cannot be properly expressed).”

Along with Sudharma, others like Siddhasen and Samant Bhadra were also grasping the import of the discussion. Lord asked Siddhasen, “Child! Why don't you tell about the pot?” Siddhasen replied, “Lord! The pot is not in front of my eyes and hence nothing can be clearly told about it.” In reply, Mahavir said – “This is the sixth aspect of knowledge: '*Syaat naasti cha avyaktavyam*' (meaning that the thing is not there and nothing can be said about it).” After this he pointed to Samant Bhadra and asked – “Child! Why don't you tell something about the pot now?” Samant Bhadra hesitated a little and said – “Lord, the pot is there. But since it is not in front of my eyes, it is not there. Hence it exists and it doesn't exist also. Nothing can be clearly said about it.” Theerthankar laughed aloud on seeing Samant Bhadra's hesitation and said – “This is the seventh aspect of knowledge: '*Syaat asti cha naasti cha avyaktavyam*' (meaning that existence and truth are both existent and non-existent and cannot be expressed properly).” After saying thus, he became a little serious and said – “Adding '*Syaat*' (probably) while talking about your experience of existence and its truth is representative of them being relative to one another. This relativity has

seven aspects. It is only during Samadhi, the highest state of consciousness that all these *Syaats* vanish and one can experience completely the existence as well as truth. After explaining this wonderful scientific principle of *Syadwad* or *Sapekshatawad* (relativity), Lord was silent for a moment and then said - "To raise oneself above from this state of relativity and to experience existence and truth completely, one has to adopt the scientific knowledge and techniques of Yogic science given by our *rishis*."



Yoga instills self-discipline

14

Maharshi Patanjali was so deeply engrossed in study, reflection and research of the yogic science that he had forgotten himself. Yogic science is the scientific gift from the ancient *rishis*. It was being discussed not only within the university but in the entire country that Maharshi was engaged in some specific and important experiments in yogic science. They also knew about his rigorous penance, extraordinary intellect and his yoga *sadhana* which made the impossible possible. Over and above all these was the power of his resolve. It was well known that once Maharshi uttered something, then it was bound to happen. His immaculate resolve could never go in vain. In the recent past when he had written the commentary on Panini's grammar, he had given this example in explanation to Sutra 3/1/26 of Panini - *pushyamitro yajate, pushyamitro yaa jaayate* (meaning - Pushyamitra is performing Yagya, He is the Yajman). With respect to another sutra 3/2/123, he gave an example in his commentary thus - *iha pushyamitram yaajayaamah* (meaning - this is the yagya of Pushyamitra).

People discussed at length about the present tense used in the above commentary, because Pushyamitra had completed his studies in his *Gurukul* and had been appointed in an ordinary post in the army of Mauryan emperor Brihadrath. In those days, due to the cowardly nature of Brihadrath, foreigners had invaded India. In such conditions, what *yagya* could Pushyamitra perform? For which *yagya* will Maharshi choose him as the *yajman*? When these questions were asked by his disciple Kritayasha, Maharshi replied – “He will be the *yajman* of *Ashwamedha Yagya*. Pushyamitra is soon going to oust the foreign invaders and free India. Then we will perform *Ashwamedha Yagya*.” She asked how this was possible. Maharshi replied – “When the ruling classes of a nation do not discharge their duties efficiently in protecting the country, then spiritual powers should spring into action and fulfill those responsibilities.”

After this Maharshi Patanjali did not say anything. We are talking about a time 3200 years back from now. With the downfall of Brihadrath, invaders left our country. All this was done by Maharshi's dear disciple Pushyamitra Shung who, after being crowned as the emperor of India, performed *Ashwamedha Yagya* in which Maharshi Patanjali assumed the role of Acharya. It was this Maharshi who reviewed and revised the book on healing methods written by Acharya Agnivesh and changed its title to 'Charak Samhita'. Earlier it was titled 'Atreya Samhita', as a mark of respect to Atreya Punarvasu, the teacher of Acharya Agnivesh. When his disciples asked why he had

changed the title to Charak Samhita, he laughed and replied – “This title echoes the theme of the Vedas '*Charaiveti! Charaiveti!!*' which means that one who is active remains healthy, wealthy and wise.”

It is this Maharshi who in his latter half of life was deeply engrossed in research on yogic science. In this great work, his companions were Gavishtir, Vishwasaam, Kritayasha, and Poulomi. All these were disciples of Maharshi. Among them Gavishtir and Vishwasaam had been with him since the inception of Gurukul. Kritayasha and Poulomi were princesses. After completing their studies, during the convocation ceremony these two princesses took the resolve of dedicating their entire lives for *Yoga Sadhana*. Where else could they get better guidance than from the highly learned Maharshi. The hub of their research was the *Kulapati Kuteer* (Chancellor's residence) in the university campus. This spacious *kuteer* was more a laboratory and library than a residence.

Maharshi was an expert in physiology and medical science, in addition to grammar and acoustics. He was also an authority on behavioral sciences and in understanding the subtleties of mind. His expertise in varied fields was reflected in his research activities. He had studied and analyzed all the scriptures related to Yoga right from the times of Rig Veda to those written Mahatma Buddha and Teerthankar Mahavir. This analysis by him was not limited to mere intellectual and logical levels; he had conducted various difficult experiments related to them.

He had made subtle observations and analysis on the effect of yoga on behavior, physical health, *pranic* processes, subtle emotions of the mind, impressions, actions, expansive effects in nature and creation. He used to say that *yoga vidya* refines and purifies behavior, thoughts, and mental impressions; and makes one realize the Self.

He began to formulate sutras based on all the facts available in the erstwhile scriptures on yoga, and those suggested by various scholars, *yogis*, *sadhaks* and *siddhas*. He was executing this project like a true scientist. There was no place for opinions, beliefs or faith in these sutras. Whatever was established as a fact, as a result of experimentation, was being accepted. His book which is divided into 4 *Padas* – *Samadhi Pada*, *Sadhana Pada*, *Vibhuti Pada* and *Kaivalya pada* has 51, 55, 55 and 34 sutras in each, respectively. Hence the whole text contains only a total of 195 sutras. This science of yoga given by him is for those who believe in the power of God. It is also for those who are atheists and do not believe in God. There is no discretion of caste, creed, region and sex for using this text.

On the evening the script was completed, he was strolling in the *Kulapati Kuteer*. It was as though the rays of the setting sun were enveloping the lotuses that were in bloom in the lake and bidding farewell. The flowers in the garden were spreading their fragrance. Maharshi was silently strolling. There was serene happiness on his face. His companions in the work his disciples offered their

salutations from the entrance of the *kuteer*. He raised his hands as a gesture of blessing. Among them, Poulomi spoke with slight hesitation – “Respected sir, which sutra is the most important among the 195 sutras formulated by you?” He replied that it is the first sutra namely – *Atha Yoganushasanam* – because yogic science is only for those who follow the discipline of scientific techniques of this science” And, “Acharya, what are these fundamental scientific techniques?” He replied – “Daughter! It is an eight-fold process –

1. *Yama* – for refining your behavior because they comprise of principles for noble behavior and actions
2. *Niyama* – for preventing your thoughts from getting scattered
3. *Asana* for making the body agile, strong and healthy
4. *Pranayama* - for cleansing the *prana*
5. *Pratyahar* – to imbibe *pranic* flow along with thought consciousness
6. *Dharna* – to get energy to imbibe *Tatva, Satva* and *Satya*
7. *Dhyana* – to be engrossed in the various *dharanas*
8. *Samadhi* – to realize the Truth and the Self by entering through the door of *dhyana*”

All the disciples in a unanimous voice said – “We are extremely fortunate for having been in your company.” At that Maharshi said – “My children! I am ever grateful for

your loving co-operation.” Then the students read out these lines and surprised the Maharshi –

*Yogena chittasya padena vacha
Malam shareerasya cha vaidyakena |
Yoayakarotam pravaram muneenaam
Patanjalim praanjaliraanatosmi | |*

*Patanjali mahaabhashya charaka prati samskrutai |
Manovakyay doshanam hantre ahivataye namah | |*

Meaning: We fold our hands and offer our salutations to the supreme Muni Patanjali who has developed the science that removes the impurities of: mind through yoga; speech through the commentary of sutras; body through composition of Vaidyakshastra (scripture on medicine). We prostrate to the Seshavatar Maharshi Patanjali who has composed Patanjali Sutras, Mahabhashya and Charak Samhita and developed the science of removing the impurities of mind, speech and body.



Science of Tantra

The Investigation of Energy Streams that Flow in the Microcosm (vyashti) as Well as Macrocosm (samashti)

15

The daily routine of Maharaj Rameshwar singh, the king of Darbhanga (Mithila region) was an extraordinary occultist and sadhak. He was an exponent of the science and technology of occult secrets. Maharaj used to get up at 2 AM and do the complete reading of *Durga Saptashati* sitting on his bed itself. After that, he would complete his bath by 3.30 AM and perform *Vedic Sandhyavandan* along with *Sahasra Gayatri Japa*. Thereafter, he used to offer *Pindadaan* of one maund (approx. 40 kgs) of rice. He used to complete the daily worship of *Parthiv Shivling* in the *Brahmamuhurta* and then proceed to the temple of Goddess Bhagawati. Here, he used to perform *Tantric Sandhya* and do the *patrasthapan* according to the *tantric* rites. After that he used to perform the worship of Goddess Mahakali, *Aavaran Puja*, *Japa*, *Panchang Paath*; and then offer *pushpanjali* along with *Kakaaraadi Sahasranam*. After that he performed the *Pujan-Tarpan* of *Kumari*, *Suvasini*, *Batuk* and *Samayik* and partake the *mahaprasad* and be ready by 10.00AM.

After taking rest for an hour, he used to perform and supervise his royal duties from 11.00AM-3.30PM. Then, he used to take bath; perform *Vedic Sandhya* and *Gayatri Japa* and complete *Parthiv puja* during *Pradosha* time. During the night, he performed '*Sangopang Nisharchan*' of Goddess Bhagawati. During the *Nisharchan*, 108 Brahmins collectively chanted *Durga Saptashati* and 51 Brahmins performed the *Rudrabhisheka*. Even otherwise, there used to be continuous reading of *Saptashati*, Vedic and *tantric japa* of *Gayatri*, *Rudrabhisheka* without any break during the day. The king who had converted his entire life into a *Maha Anushthan* was well-read and a great scholar. He was an expert in English, French, Bengali, Hindi and Sanskrit. He was a master of the science of *Tantra*. In addition, he was well-versed in *Vedanta*, *Sankhya*, *Yoga* and *Vyakaran*.

He was a generous king who gave whatever was asked of him by the needy. He was a just king who was loved by his people. He had an ardent desire that people should be aware of the scientific aspects of *Tantra*. That is why he organized a conference of all eminent scholars of Tantras during the autumn of the year 1908. Scholarly Brahmins, great *sadhaks* and scientists attended this conference. Pt. Prakashanand Jha of Vaidyanath Dham, Pt. Shivchandra Bhattacharya of Kashi, *Srividya sadhak* Pt. Subramanyam Shastri, John Woodruff, the president of *Aagam Anusandhan Samiti*, Kolkata were amongst the prominent participants. It was John Woodruff who gets the credit for taking the knowledge and secrets of *Tantra* to the western world. Along with Sir John Woodruff, Ivan Stevenson, a

great doctor from Britain and a scientist by name William Hopkinson had also come. On this occasion, Maharaj of Patiala Bhupendra Singh, who was a friend of Maharaj Rameshwar Singh had also come. He had also become a *sadhak* of Goddess Shakti. Maharaj himself was taking his guests to all the nearby pilgrimage centers of Shakti. During this time, they also visited Sahrasa region. In a nearby place called Mahishi is the Bhagawati Ugratara Peeth.

The responsibility of presiding over the conference was entrusted to Pt. Shivchandra Bhattacharya, who had given special guidance to the Maharaja in *Tantra-Sadhana*. He was also the Guru-initiator of John Woodruff. It was the Maharaja who had inspired John Woodruff to get initiated into *Shakti-sadhana* by Pt. Shivchandra Bhattacharya. Panditji was telling - "*Tantra* is the science of study and research of energies that flow within an individual and in the entire creation. Tantra believes that each and every atom of the universe is energized by *shakti*. It is a different matter that this energy flow is sometimes dormant and at others active. This energy manifests itself in infinite forms. But there are 10 fundamental energy streams that are also called as '*Dasa Mahavidyas*'."

Pt. Shivchandra Bhattacharya, the pre-eminent scientist of *Tantra* was revealing these facts. He was telling that the energy that flows in the universe flows in the individual in the form of *prana*. It is through these energy streams that the universe has been created. He then requested Maharaj

Rameshwar Singh to speak on the topic of streams of *prana* that flow in the individual's body. He also announced that the flow of energies in the universe will be explained by Mahapandit Subramanyam Shastri. Maharaj accepted this command of Pt. Shivchandra Bhattacharya hesitantly and got up to speak. He was looking extremely majestic and grand with his round face, bushy moustache, towering height, wheatish complexion and a *tilak* with ashes in the middle of his brow.

He spoke thus - "The five *pranas* and five *upapranas* described in the Vedas are the *Dashamahavidyas* present in the body of an individual which connect him to the universe. (i) The first *Mahavidya* resides in the reproductive organ in the form of *Mahakali* - *Apana* and its *upapran* in the form of *Kurma* (tortoise). (ii) *Shodashi* and *Bhuvaneswari* - *Prana* and its *upapran* reside in the heart in the form of *Naga* (snake). (iii) *Bhairavi* and *Chinnamasta* reside in the throat in the form of *udana* and *Devdatta*. (iv) *Dhumavati* and *Bagalamukhi* reside in the navel region in the form of *Samana* and *Krukal*. (v) *Maatangi* and *Kamala* reside in the brain in the form of *Vyana* and *Dhananjaya*." Maharaj paused for a while and then said - "I have had the vision of *Mahamaya* in all these forms as I have described till now."

Everyone present was stupefied at the knowledge that Maharaj shared from his experiences. After Maharaj has taken his seat, Acharya Shivchandra signaled Mahapandit Subramanya Shastri to deliver his talk. A few years ago, he

had initiated Maharaj in a special *diksha* called *Samrajya Medha* of *Tantra sadhana*. He had a brilliant voice. He began to speak in a serious tone:

“In this vast universe, the energy of *Adividya Mahakali* is active from midnight 12 O clock till sunrise. This is the *Adimahavidya*. *Mahakal* is the *bhairav* and he is worshipped during the *Maharatri*. The *bhairav* of *Mahavidya Tara* is *Akshaumya Purush*. Her energies are active during sunrise and the best time for worship is *Krodhiratri*. The *bhairav* of *Shodashi*, *Srividya* is the five-faced *Shiva* whose power is active during the silence of dawn. The best time for worship is *Divyaratri*. The *bhairav* of fourth *Mahavidya Bhuvaneswari* is *Trayambak Shiv*. The time of sunrise is the period when this power is active. The *upasana* is done during *Siddharatri*. The fifth *mahavidya* is *Bhairavi* and her *bhairav* is *Dakshinamurty*. The active period is after sunrise. The *upasana* is done during *Kalaratri*. The sixth *mahavidya* is *Chinnamasta* and her *bhairav* is *Kabandh Shiv*. The active period is during the afternoon and the *upasana* is done during *Veer ratri*. Seventh *mahavidya* is *Dhoomavati* and her *bhairav* is *Aghor Rudra*. He is active post-noon. The *upasana* is done during *Daarun ratri*. Eighth *mahavidya* is *Bagalmukhi* and her *bhairav* is *Ekavaktra Maharudra*. The active period is in the evening and *upasana* is done during *Veer Ratri*. The ninth *mahavidya* is *Matangi* and her *bhairav* is *Matang Shiv*. The first phase of night is the active period and *upasana* is done during *Moha Ratri*. *Bhagawati Kamala* is the tenth *mahavidya* and her *bhairav* is *Sada Shiv*. The second phase of night is the active period and *upasana* is done during *Maha*

ratri. It is with these ten *mahavidyas* that the universe has been created and hence this is also called the science of creation (*Srushti vidya*)."

In this way, several expansive discussions took place during the conference till evening. After seeking Maharaj's permission, John Woodruff and his scientist friends examined Maharaj using several instruments. After their measurements, they had to announce that the levels of *pranic* electricity and bio-magnetism in a *tantra sadhak* were extraordinarily higher than those found in a normal person. On hearing this, Maharaj Rameshwar Singh laughed and said - "Actually this is the result of the union of the visible with the invisible."



The Time and Place of a Person's Birth are Very Significant

16

“Astrology gives insight into scientific spirituality. This field is a blend of mathematics – accepted by modern scientists – and the knowledge of spirituality – practiced by ancient sages” said Swami Vishuddhananda Paramahamsadev. While saying thus, he signalled Mr. Chel to sit next to him. Mr. Chel was hesitant to sit next to the great master, but followed the instruction, taking it to be the command of the Master. Mr. Chel's full name was Rohini Kumar Chel. He was staying at Theatre Road, Calcutta and had deep interest in astrology. He was worried about some complicated problems in his personal life. To solve these, he approached many, but was cheated. Instead of the light of knowledge, all that he met with was darkness. He lost even what he had in his hand. It was during such a depressed state of mind that a friend told him about Yogiraj Vishuddhananda.

He first did not want to meet him, but later decided to do so with a view to at least test him. Thinking thus, on the advice of his friend Manindra Kumar Bhattacharya, he

sent a telegram seeking permission to meet Yogiraj. The reply came soon – “Not now” But his curiosity did not subside and he left for Gushkara, where Yogiraj was staying. Reaching there, he sat outside Yogiraj's house as the doors were closed. Sometime later, the doors opened and Yogiraj stepped out. There was a fragrance of moist lotus emanating from him. Both his eyes were red, but were filled with wondrous brilliance. When Chel looked closely, he realized that not only was there the fragrance of lotus, but also an aura of white light around him. Before Chel could say anything, he was invited in and made to sit next to Yogiraj.

Chel sat down and started searching for his and his wife's *kundali* (horoscope) in his bag. Seeing him search for his *kundalis*, yogiraj asked him to stop and took out two *kundalis* from a cupboard in the room and gave them to him. It contained both the *kundalis* with their names, time of birth, *Lagna chakra*, *Chandra Kundali*, *Vimshottari Dashas*, *Antar* and *Pratyantar dashas* of both him and his wife. They also contained the predictions for both of them. Now Rohini Babu was not just surprised – he was astounded as to how Yogiraj knew his and his wife's life details. On asking, he was told – “When I saw through my yogic vision that you were coming in spite of my asking you not to come, I prepared these *kundalis*. Well, compare them with the original *kundalis* you have.” On comparing, Rohini kumar found out that while his wife's *kundalis* matched, his *kundalis* showed different birth times.

When pointing out this difference, Yogiraj “Chel, the *kundali* I have prepared is the correct one. Compare my predictions with the events in your life and check” Chel Babu then compared the predictions and found that whatever Yogiraj had predicted matched 100% with his life events till then. Yet, he was thinking that the *kundali* he had brought along had also been prepared correctly. Seeing him thinking thus, Yogiraj told him “No. That is not the correct time. If that time had been correct, then you would have been as great as Rama and Krishna and instead of your coming to me, I would have come to you and worshipped you”

Yogiraj Vishuddhanandji stood up and continued “The time of a person's birth is very significant. It tells us with what seeds of Karma and *sanskaras* a soul takes birth. The time of birth gives a person a position in this splendid cosmos. It is an unchanging position for the person in the wheel of time” When he was telling this, it appeared as if he was not standing in the room, but at the centre of the creation and seeing all this happening clearly His eyes were filled with the light of a *rishi*. He was saying “This entire creation is the *leela* of Bhagwati Adi Shakti. There are innumerable energies flowing here which meet and interact with others every moment and in every particle. It is due to this interaction among energies that the whole creation manifests in the forms of humans, animals, plants and minerals. They are sublimated also on the same lines which in lay man terms can be called death or transformation in form. The *rishis* who invented astrology

divided these energies into 27 *nakshtras* (stars) with 4 sub levels, 12 *rashis* (signs) and 9 *grahas* (planets). They had observed the dynamic changes in these energies through *Vimshottari*, *Ashtottari* and *Yogini dashas*. Through their *antar* and *pratyantar dashas*, they had analyzed the transformation of these energies in very subtle levels. Now if someone is born in Gushkara or Burdwan at 4:14AM in 1894, then his position in the wheel of time is fixed. This position in the wheel of time is indestructible. Now, according to the effects of time, these energies will shape the course of a person's life. What this process is and how it unfolds is decided by the *yuti* (combination) of planets and their position in the *lagna* chart. This can be understood through the *Vimshottari* and through the process of *antar-pratyantar*. In this manner, the *samskaras* lying in the *chitta* of the person and seeds of Karma sprout, get catalyzed and manifest"

Saying this, Yogiraj walked around the room once and sat in a chair and continued – "What I told you about astrology is one aspect of the truth. Listening to this, it appears as if everything is decided *a priori* and nothing can be changed. However, if this is understood properly, then man can unravel his inherent capabilities, identify his real characteristics and then make use of the energies that will beneficially influence him. Then, he can adopt methods and means by which he is not harmed by the dynamic, ever-changing energies. This is similar to how a man, when he understands that earth revolves around the sun understands its implications, can decide on the various

times for sowing and harvesting crops - such that each season benefits him. *Sadhana vignan* is united always with astrology. The Mathematical aspect of astrology - the positioning and interactions of planets and stars just tell the changing seasons in a man's life. The same is true of *Mahadashas*, *antardashas* and *pratyantar dashas*. The second important aspect of astrology is one which selects the *sadhana vidhaan* necessary at key points in life. The mantras for planets, the process of *daan*, gems and medicines are for this purpose. If a person does not understand all these, then he should do 1000 Gayatri Mantra *Japa* everyday and 24,000 Mantra *Japa* during *Navratris*. In addition to this, one should do *chaandrayan vrat* 3 times and one *anushthan* of 1.25 Lakhs *Japas* in a year. If this is done, then the effects of planets would be beneficial throughout a person's life" Completing his words, he paused and then added with a laugh - "Astrology has a deep hidden connection with Ayurveda."



Ayurveda

The science of life

17

Ayurveda that sprouted in the fertile soil of scientific spirituality is not only a science of healing, but is actually a science of life. Acharya Nagarjuna was building a huge laboratory for a multi-faceted research in this field. It was being built on the peaks of Srisailam, beside the beautiful Krishna River, in such a manner that the various buildings appeared like beads on a string. On the peaks of this holy mountain, Lord Shiva has been residing from many *yugas* as one of the 12 Jyotirlingam in the form of *Mallikarjun*. The Ashram of the Acharya was in this divine ambience. He was born in a village called Chattisgarh in 1st century AD, in today's Vidarbha region. His parents had made their son an expert in Vedas, Vedang, philosophy and grammar by the time he reached his teens.

The yearning for higher education pulled him to distant Pataliputra. In those days, Pataliputra was no less than Kashi in higher education. It had eminent scholars like Ashwaghosha, Aryadeva, Vasabandhu, Asanga and

Dinganag. Nagarjuna added a feather in the glory of Pataliputra by his contributions. Rigorous *Tapas*, practice of Yoga, continuous study, teaching and research made his name a metaphor for rare talent. He was an exponent and philosopher of *Shunyavad*; a great chemist of *Raseswara Tantra*; had attained *Siddhi* of *Sarhapa* which is the greatest occult science of *tantra* among the 84 *Mahasiddhis*; was the first Acharya to use mercury as medicine; an expert physician in Ayurveda, surgeon and a chemist. In addition to all this, he was a great and courageous patriot who inspired his disciple Shalivahan to oust valorous Shaka king Kanishka and made him flee from Pataliputra. India was once again freed from the clutches of invaders.

The same *Mahasiddha Yogi*, philosopher, extraordinary doctor, and great chemist had come to the banks of river Krishna (leaving the banks of holy Ganga and Pataliputra) on the insistence of his disciple and courageous king Shatavahan. The construction of his laboratories was complete. There was no other laboratory that could match the facilities and expertise of these laboratories in the fields of Medicine, Herbology, Chemistry and the science of Yoga Tantra. Even though Acharya Nagarjuna was inspired by Bhagwan Buddha and had adopted Buddhism, his faith in Lord Sadashiv was intact. This was the reason why he chose Srisailam for his laboratories. King Shatavahan was happy and proud to have his Guru's presence there. He would come and meet him regularly.

That day also, he had come to meet his Master. Three other persons Kamalsheel, Vimukta Sen and Subhuti too had come to meet the Acharya. These three were spreading the *Dharma-Samvedana* through their speech and writings. Among these three, Subhuti was not keeping good health. Due to his inquisitiveness, he was putting many questions to the Acharya on Ayurveda, health and healing and the Acharya was answering them patiently. When the king came to meet the Acharya, he was saying – “Man is not a bag of bones covered with muscles and skin. There are many secrets in him. The nervous system, endocrine system, the *chakras*, *Upatyikas* and *nadi guchchhaks* are no less than any miracles. It is through these that the energies of the cosmos, the light of *prana*, enter the body, and keep it alive, healthy and happy”

This statement by the Acharya appeared extraordinary to the king. He asked “What is the mechanism by which these energies enter the body”? The Acharya replied – “Actually, this living physical body is an expression of *chitta*. That is why the nervous system, *chakras* and *upatyikas* act as per the state of *chitta*. Sometimes due to *prarabdha* or at other times due to impure *samskaras* of the *chitta*, these inlets of energies are blocked because of which a person falls sick. Such illnesses, accidents and lifestyles are due to *prarabdha*, but the health is also adversely affected by irregularities in food and lifestyle. However such illnesses can be cured effectively by modifying the habits of food and lifestyle, and by using simple medicines.

However the diagnosis and cure of illnesses due to *prarabdha* is more difficult. Hence Ayurveda is intimately connected to astrology and Tantra. This triune together makes a very efficient healing science. Hence Ayurveda is a science where the science of matter and spirit are blended together. Astrology completes the five-fold process of diagnosis and tells us whether an illness is due to food and lifestyle or unnatural living or whether it is due the seeds of *prarabdha karma* sown by the wheel of time because of which the centers that were to receive the energies have now started blocking them”

Subhuti spoke up. He had been ill for some time and was probably wondering whether some serious disease or some planetary combinations were causing his illness. He said - “Acharya, if that is so...” The Acharya understood his question and laughed away the concern and said - “Your illness is just because of bad food habits and lifestyle. By a simple diet, continence and ordinary medicines, you will be completely cured.” Subhuti got his answer, but the king asked - “What is the role of *tantra* in ayurvedic healing?” The Acharya became serious and replied - “O King! The actions of *tantra* are to remove the diseases that are due to *prarabdha*. By these, the blockages in the energy paths of the body are removed and the cosmic energy flows unimpeded in the body. In addition, by *Tantric* practices the medicines become so energised that by just one dose of the medicine, a patient can become completely healthy. If you wish, you can all see this miracle now” They all replied - “Yes Lord. We want to see

it.” At their request, the Acharya took the medicine powder being given to Subhuti and uttered something on his lips and fed the medicine to Subhuti. Subhuti, who was ill for a week, in an instant became completely healthy! On experiencing the miracle of healing on its own, they were all stunned as they watched the great Acharya who had composed dozens of works on philosophy, tantra, yoga and Ayurveda. The poet Kamalsheel became emotional and bowed at the feet of his master. The king was also overcome with devotion to the Acharya.



Socrates the Worshipper of the Life-Deity in the laboratory of life



Socrates – the great man who sowed the seeds of scientific spirituality in the west was roaming in the streets of Athens. The clothes he was wearing were torn and also dirty as they had not been washed for many days. The state of his footwear was worse than his clothes. It had been sewn many times, but was still tattered. However, none of these affected him. There was soft smile on his lips and bright light in his eyes. Though he was now seventy, the spring in his step and the energy in him made him appear many years younger. Though the body showed signs of aging, his mind and inner being showed the same youthfulness and was a sea of joy in which people around him would take a dip always.

Even now, he was surrounded by Xenophon, Crito and Plato. Walking with them, he came upon a market where vegetables, vessels made of metals and mud, idols, grains were being sold and bought. He moved on and came to a shop selling idols. He lifted an idol, looked at it for some time and then kept it back and laughed out loudly. When

Plato politely asked him the reason for laughing out thus, Socrates replied – “Seeing it, I was reminded of my past. My father was master idol maker and wanted me to make idols. I told him that I would make idols, but they will be alive. I would be an artist; but the art would be that of living. I will teach the same to others.”

On seeing Socrates arrive at the market, many people surrounded him. Many of them were the youth of Athens. No one knew what the youth of Athens saw in Socrates – a man of less than ordinary face. However the youth used to feel a strong magnetic pull towards this old man. This was what the ruling powers of Athens could not digest, but Socrates was not bothered. He asked the youth around him “Tell me which deity gives its blessings immediately on being worshipped? Tell me also the method of worshipping this deity.” On hearing these two questions, there was a wave of discussions among the youth. Some said Atlas while someone else said Pterelaos. The discussion of gods and modes of worshipping them developed into an argument.

Socrates moved away from this argument and started explaining to Plato – “Thoughts are born out of questions. The continuity of thoughts shows the intellect. If intellect is deep and permanent, then out of it springs curiosity. In the fields of true and strong curiosity is discernment born. If the intensity increases in discernment, then the light of inner wisdom breaks forth. From this field of inner

wisdom sprouts the experience of solutions to curiosity. This experience is comprehension and knowledge." Even Xenophon and Crito were listening to this conversation. Socrates continued - "In the laboratory of life, I have conducted experiments on the science of life and that of spirituality. I am sharing with others the same thing. The knowledge obtained by such experiments is not limited to theories and imaginary things, but are applicable for living a worthwhile life and has the power to transform one's lifestyle completely. I believe in the doctrine that man is the measure of his own sensations and feelings. The best way for people to live was to focus on self-refinement rather than the pursuit of material wealth."

As Socrates was explaining this, the arguments among the youth continued. A youth came towards Socrates and said that there is no such deity as defined by Socrates. At this, another youth came forward and said - "There is one deity; the deity of life. If he is worshipped with noble qualities, then he fulfils all desires immediately". Socrates asked "Youth, what is the biggest noble quality?" The youth replied "Knowledge is the greatest noble quality." Socrates smiled and cast a meaningful glance at Plato and said "It appears that my teachings and the importance of knowledge in life are being slowly understood by the youth of Athens. If this experiment of knowledge expands, then there won't be dogmatism, superstitions and blind belief. This is the goal of the science of spirituality which you people have to fulfil. My inner voice is telling me that

this is my last class in the street of Athens." Before he could say more, soldiers of Athens surrounded them and arrested Socrates.

Socrates was tried and convicted by the court of democratic Athens on the charge of corrupting the youth and disbelieving in the ancestral gods. He was told that if he apologized for his actions and promised not to repeat them, he could be forgiven. Socrates did not do so. As a result, he was convicted and sentenced to death by poison. Socrates laughed out aloud at the allegations and the punishment and said "O judges! When death knocks on your door, then accept him with the courage with which I am accepting him. Always remember that no calamity befalls a person of truth either in his life or after his death. The Lord never is indifferent about the destiny of such a person." He continued - "The punishment that you have meted out is actually not a punishment, but a divine plan. My inner voice that always guides me has said that my experiments on life will spread out from here. My job is done. It is now better for me to leave this body and be freed of suffering. I am neither angry on those who made the allegations nor on those who passed this judgement. Now the time has come for us to move on - I on to death and you on to living. But among my death and your living, which is the greater one?" Thinking for some time, he continued - "This death of mine is not death. This is the last in the series of experiments I conducted on life."

Saying thus, he walked towards the prison. On the day of his death, his students came to meet him in the morning. Socrates was sleeping peacefully. When the guard got the vessel of poison, he was happy and took it from the guard excitedly. He told his students "Come and sit near me. All these days I have explained about life. Now I will explain about the experience of death." Drinking the poison he started explaining the changes happening in him both physiologically and mentally and slowly the body started losing the life force and became sluggish but the light of his inner peace spread everywhere. In the end he said "I am being established in the heavenly light. The death of the body and the poison given could not harm me." Then looking at Plato he said "Tell everyone about my experiments with life and tell them that one who worships the deity of life not only remains free of all sadness during his lifetime, but also achieves a much higher state in death and is happily established in the light of heaven." With this, his eyes closed shut.

This Fusion is Based on The Quest for Truth

19

The original experiments in the field of philosophy and spirituality gave a new dimension to Rene Descartes' research. His novel deductions and his search for truth impressed the unmarried queen of Sweden - Christina. Queen Christina was a seeker despite being surrounded by immeasurable wealth. Perhaps that is why she was unmarried. The deductions of Descartes which led to the fusion of spirituality and science made a deep impression on her. Her tender emotions were touched by them. They watered the seeds of spirituality lying dormant in her. Over many years, she interacted with Descartes and made many proposals to him - and one among these was also a proposal to marry him.

Descartes read the letter, smiled and with a shrug of his shoulders continued on with his work. By a coincidence this letter fell into the hands of his student, Guelinx. He and Malebranche were cleaning their master's quarters. Guelinx was a Dutchman and Malebranche was a Frenchman who had only recently travelled to Holland to

be with the great master. These two enjoyed serving their master even more than listening to him. Malebranche would congratulate Guelinx on his good fortune that even though Descartes was a Frenchman, he had chosen Holland for his stay. However today, Guelinx did not respond to this statement and was engrossed in the letter which he had picked up from the corner of the big table.

When Malebranche asked Guelinx what he was reading, he did not reply but handed over the letter to him. Malebranche read it and then both looked at each other and decided on something. During dinner, both of them suggested to Descartes that he should take up the offer of the queen. "So, you two have read that letter" Descartes replied and continued "If you are referring to the marriage proposal of the queen, then my answer is No. All my life has been dedicated to philosophy and the search for truth while conducting scientific experiments in spirituality. A seeker of truth should remain detached from relations and resources and stay alone and concentrate on his work." In these words of Descartes there was resonation of his Spiritual feelings.

The two students remained quiet for some time and then asked - "What is the mechanism of searching the truth?" Descartes replied "The process and mechanism are long drawn but it starts with doubt." The students responded - "The priests in the church ask us to follow the path of faith!" Descartes replied calmly "In my scientific outlook, it does not seem to be the right method because faith

means accepting something without experiencing or experimenting. According to me, such faith closes the doors of experience while doubt inspires us to have the experience. It is correct that faith gives a false impression of reducing stress, but it also diminishes the mental activity and gives a conscious state of sleep. But doubt ensnares the mind and awakens it. It converts a mental sleep to an awakened state and activity.

“In addition, I believe that doubt should be positive and inquisitive. Doubt does not mean suspicion. People who are suspicious increase their mental perplexity and destroy their life. The faithful are better than these. The result of doubt should be mental awakening. From this awakening should emerge the attitude of inquisitive questioning and thinking. Scientific experiments are necessary to satisfy this curiosity. One should have faith on the results of such experiments. Faith should be at the end of the path that begins from doubt and should not become a synonym for mental incapability that spreads darkness. I ask you all to doubt yourselves. Ask yourselves if you are or not? If you are, and are thinking then there is someone who is thinking. Whoever is thinker, who is he? Solve these questions not through blind faith, but through experiments in spirituality. Then you will understand the mystery of your existence.” Saying thus, he smiled at both of them.

In the confident, pure and influencing river of Descartes' thoughts, the doubts of his students were washed away.

They asked "What is the need of scientific experiments in spiritual practises?" In reply, Descartes said resolutely "There is a need, a very vital need. Man's life itself is the confluence of science and spirituality. Man is neither just matter nor spirit. He is a combination of both. His body is made of matter, but his consciousness is made of spirit. Science is needed for understanding matter, while spirituality is needed for research in the realm of consciousness. He performs actions with his physical body in this material world, but his knowledge, thoughts and experiences happen in the realm of consciousness. Why just man, this entire creation is made up of matter and spirit. In such circumstances, one needs the help of both science and spirituality to understand creation. The fusion of science and spirituality is an integral process of seeking truth."

Descartes' words reflected the truth of his own experience. These two knew that their master had studied not only philosophy, but also had deeply studied human physiology, psychology, maths, astrology and astronomy. One of his main contributions was the study of receptor and motor nervous systems. He had not only propounded the method of doubt for search of spiritual truth, but also had explained for the first time nervous systems and mental processes. Their master was not only the father of philosophy in the western world, but also the pioneer in modern science. The dinner was over, lost in these words. Descartes drank water and wiped his hands on the napkin and got up to retire to bed.

The students then again beseeched him saying “You refuse the love and offer of marriage with Christina, but please satisfy her spiritual quest.” This idea appealed to Descartes and he told them “You reply to Christina asking her not to talk to me about personal things but limit the discussions to philosophical, spiritual and scientific topics, because this is the correct time to seek knowledge.” Queen Christina agreed to all his conditions. In 1649 AD, he went to Sweden, but unfortunately he died within 4 months, at the age of 54.



Let Science Be Filled With Creative Empathy

20

The sage of science, Einstein, was sitting in a depressive and pensive mood one evening. His eyes were brimming with tears. The pain was evident on his face. He got up from his chair, walked to the window and looked out. The sun had perhaps set a few minutes back. The sky was filled with a reddish glow. Looking at it, he did not feel that the sun had set. He felt that it was humanity that had sunk into devilish darkness and the reddish glow in the sky was the blood of humanity that had flowed and spilled over into the sky from earth. With tired steps, he walked back to his chair and settled down. He looked up into a calendar on the opposite wall. It was the 9th of August, 1945. Three days back he had felt the same agony as if someone had torn him apart. He was deeply hurt and depressed when he had heard on the radio that America had dropped an atom bomb on the Japanese city Hiroshima. Today, within three days another bomb was dropped on the city of Nagasaki and lakhs of people had been killed. He had heard that the blasts had released so much energy that it had paled all past destructions in

comparison and death had played out a pitiable dance of annihilation. The flames that broke out of the bomb were burning, melting and exploding buildings. Scared of the heat of the bomb, people had jumped into lakes and rivers, but the water was boiling and the people too were burnt and killed. The animals in the water had already boiled to death. Animals, trees, herbs, fragrant flowering plants were all turned into ashes. The atomic energy destruction had just not stopped there. It had entered the atmosphere there and had spread radiation that would affect people for generations to come and would also bring about destructive irreversible genetic mutations in animals and plants. As the news of atomic attack reached Einstein, and he became aware of the glaring horror of the abuse of atomic energy, his distress and restlessness knew no bounds. He could not control himself and picked up his violin to turn his mind on to other things. While playing the violin, he tried to dissolve his distress in its sad notes, but was unable to do so. He was burning on the embers of destruction; his heart was filled with an ocean of agony and tears just continued streaming uncontrollably out of his eyes. Night had fallen. His daughter came up to him and beseeched him to eat something as he had not taken anything for the past four days. His voice was restrained and he said "I don't feel like eating."

He could not sleep that night. Lying down, he was thinking how he had attracted the attention of the then American President Roosevelt towards the destructive powers of an atomic bomb. He was thinking that this

would be used to scare Hitler and put an end to the barbarism that Hitler was up to. However, Roosevelt kept him in the dark and made false promises. Eventually, he had abused Einstein's equation of $E=mc^2$ that resulted in the destructive experiments. His actions had made science and scientists as murderers. Einstein kept thinking for a long time. Eventually, he slipped into sleep. When he woke up at dawn, there was a new dawn in him too. The atomic threat had transformed his heart.

The next day, he decided to disassociate himself from the scientific policy of the government and all governmental institutions. He decided to open educational institutions for children, adolescents and youth - institutions where along with science, spirituality would be compulsorily taught.

To inaugurate this institution, he had invited great philosophers Bertrand Russell and Albert Schweitzer. Ten other great scientists who had won Nobel prizes in different fields were also invited. They all saw Einstein in a different form that day. They saw in him a sage than a great scientist. The institution was opened by garlanding a large size photo of Mahatma Gandhi. While garlanding the Mahatma, he became emotional and said with a lump in his throat "I bow down to the great man who fought for the independence of his country for the first time in the history of the world - through non-violence. He could do so because he was a truthful man and a true spiritualist."

Today's science needs the company of spirituality. Whatever resources are generated by science and scientists can be put to creative and constructive use only when science is filled with the creative empathy of spirituality. Hence those who teach science should be taught spirituality too. Without harmony between science and spirituality, the destruction would continue unabated. A few years after this institution was built, a group of Japanese came to meet him. Einstein broke down in the meeting and told them – “You can give me any punishment and I will accept it. Anyway, I have decided to lead my life in penitence” The Japanese were moved by his sincerity and forgot their grief.

In 1955, a few days before his death, along with Bertrand Russell and Albert Schweitzer, he signed the Russell – Einstein manifesto. This was signed by eleven other eminent scientists. The aim of this manifesto was to make the world aware of the destructive effects of atomic power and to protect the world from its misuse, to increase awareness about the peaceful uses of atomic power. Einstein always had Mahatma Gandhi as his ideal. He told the then Indian ambassador to USA, Gagan Bihari Mehta “Do not compare me with that great person who has done so much for the world”. He had high hopes from India. He would usually say that in the future, India would be the land where the harmony between science and spirituality would be realised.

Modern Physics Found Its Direction from Vedanta

21

Werner Heisenberg, a scientist with a spiritual bent of mind, was elated and inspired after coming to Shantiniketan. While living in Germany he had heard and read a great deal about India. He had heard many stories and praises of *Veda mantras*, *Vedic Rishis* and their *Ashrams*. Great poet of Germany, Goethe was his most favorite poet. Werner Heisenberg had read German translation of *Abhigyan Shakuntalam* of Kalidas by Goethe many a times. He knew many verses of this poem by heart. *Rishi Kanva* and the poetic description of the natural beauty of his ashram had always impressed him. That day in Shantiniketan he was experiencing, in real life, all that he had read about - the greenery of Shantiniketan, the plants standing like youth adorned in green and the creepers embracing these plants, the multicolored scenic beauty spread all around and the air scattering enchanting fragrance. All this seemed as if Mother Nature has spread one end of her *anchal* (fabric) in extreme fondness for the human life.

The very first sight of Shantiniketan had impressed Heisenberg very much. After wandering through and seeing all over he felt as if the entire ashram is personification of one of the beautiful poems of the great poet, Rabindranath Tagore, in which *Vedic period*, *Vedic rishis* and abodes of the *rishis* have come alive all in one. The thoughts and emotions of this poet got transformed into objects and not words and that the poet, who enfolded the endless waves of love and affection for humanity in his heart, was the combined personification of the great poets Goethe, Kalidas and *rishi* Kanva. For the young Heisenberg to see him, to converse with him, to sit in his company was like the dream world coming true. For the last nine years during which he had been doing atomic research along with his fellow scientists; he had been writing letters to Rabindranath Tagore.

In 1920 Heisenberg along with Neils Bohr of Denmark, Louis de Broglie of France, Erwin Schrödinger and Wolfgang Pauli and Paul Dirac of England had started research on the nature of atom. The myth that the smallest particle of matter was atom or nucleus had already been shattered. By now science had gone beyond electron, proton or neutron. Even after the discovery of baryons, mesons, tachyons and around 20 companions of these smaller particles, it was still unclear whether there was any still smaller constituent of the matter; if yes, what was that? All these scientists, ignoring the narrow boundaries of their nations and the political and diplomatic limits, were in constant touch with each other in finding the truth.

During the course of their research all these scientists at some time or the other felt that perhaps fundamentally there was nothing like matter; as, while studying the vibrations, they had found out that the reality of the atoms was the waves of energy. After understanding this reality they abandoned the particle theory and initiated the study of wave mechanics. At this juncture Heisenberg was reminded of India and the philosophy of *Indian rishis*. Though he had been engaged in this research for about 9 years and during all this period he had been in correspondence with Rabindranath Tagore, in the year 1929 he decided to visit India and that day he was in Shantiniketan in the season of mild winter. After reaching Shantiniketan he gave a detailed report of his investigation, along with his associates to Babu Rabindranath and then in a disappointed tone mentioned – “While discovering the smallest particle of matter, now it seems that the notion of the matter is a myth. All the names and forms of matter are a myth; then what is the reality?” In answer to this Rabindranath melodiously uttered a *shloka* (verse) from 'Vivek Chudamani' a composition of the great Acharya of *Advaita*, Adiguru Shankaracharya –

*Yadidam sakalam vishwam nanarupam prateetmagyanat.
Tatsarvam brahmaiva pratyastasheshabhavanadosham.*

“Out of ignorance the entire universe seems to be of varied forms and names, but in reality this is Brahma, devoid of the defects of all emotions.”

With this the poet had taught him the essence, the fundamental secret of the philosophy of *Vedanta* - "The matter and all its forms are myth; to that extent the energy, which is the subtle form of matter and its variations, is also false. The reality is that all the differences whether of matter or of the various forms of nature, all of these are illusions. What is truth is undifferentiated and that is Brahma - that is certain and everything else is uncertain"

This concept of Vedanta, the experience of Acharya Shankar, was well assimilated by Heisenberg. For many days, he was engaged in discussions on the *Advait* truth of Vedanta with Rabindra Babu. During the course of these conversations Rabindranath informed him about Swami Vivekananda, who had revived the Vedic wisdom in this era. He himself accompanied Heisenberg to Dakshineswar and showed him the room where Vivekananda used to sit, listening to the teachings of his Gurudev Ramakrishna Paramahansa. Then he took him to Belur Math, the headquarters of Ramakrishna Mission, which was established as the *Yugateerth* of *Advaita Vedanta*. There, while elucidating one saying of Vivekananda, he mentioned - "All the differences whether these are social, biological or natural are myth. Only Truth is one, which is undifferentiated and that is Brahma"

"What is Brahma"? , Enquired the young Heisenberg with great curiosity. In reply to this, Rabindra Babu, standing at the banks of Ganga near Belur Math pointed to the magnificent water of Ganga, ignoring all the imaginary

differences of the varied shapes and temperatures of water particles and said -

*Nirastmayakritasarvabhedaṁ nityaṁ sukhaṁ
nishkalmaprameyaṁ.*

*Aroopvyaktamanakhyamavyayam jyotih swayam kinchididaṁ
chakasti.*

“He is free from all imaginary differences; He is eternal bliss, devoid of art and is not a subject of proofs, etc. He is some unexpressed, unnamed, and indestructible light which is glowing on its own.”

After listening to the experiential verse of Acharya Shankar in the melodious voice of the poet Rabindra, Heisenberg found a new direction for his research. After returning from India, impressed by the *Advaita* philosophy; he postulated the Principle of Uncertainty. After many years, on 11th April 1972 in the city of Munich in Germany, when the famous physicist Fritjof Capra visited him, Heisenberg narrated many of his experiences and said - the scientific study of spirituality, pioneered by India is the need of the present era.

This inspiration has provided the basis for the historical creation of the masterpiece “The Tao of Physics”, by Fritjof Capra. In this connection Capra met Heisenberg again in the year 1974 and showed him the manuscript of his book. Heisenberg was delighted to see that and said - “After all, the scientific study and exposition of spirituality has

begun!" After that in November 1975 Fritjof Capra sent him the first copy of the published book "The Tao of Physics". Heisenberg read that book for sure but could not write his comments as he died before he could do it. A few days before his death he mentioned to one of his friends: "The scientists of the world should study the spiritualists of India, especially Swami Vivekananda. He is such a spiritual sage of India, whose thoughts can become the basis of modern scientific research."



Vivekanand: The Seer-Scientist of Integrative Spirituality

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Swami Vivekananda had been engrossed in deep meditation since the dawn of the day and now it was already the dusk of the evening. Mary Hails, his host, had visited the room many times throughout the day and Swamiji's body had remained utterly tranquil, erect and motionless with eyes closed. Mary Hails dared not to disturb him in his meditation. She would just peep into the room quietly and go back silently. This happened many times. This time when she was coming out of the room she found Harriet Hails, her sister, standing outside the room, who asked smilingly "Is our brother still engrossed in meditation"? 'Yes'- said Mary with a little irritation and disappointment "Perhaps he has forgotten that he has been sitting in a room of a building in New York City and not in some cave in the Himalayas"

"And, perhaps he has also forgotten that in a few moments his beloved Dheermata Mrs. Sarah Olibul, is coming here along with Professor William James. And also that we two sisters have come far off to meet and spend some time with

this *sanyasi* brother” - added Harriet. For a while they looked at each other in silence and then together they entered the room, where Swami Vivekananda was meditating. By now the dusk of the evening has deepened, but surprisingly there was a faint soothing light spreading in the room. On close observation they found that the otherworldly light was emanating from the body of their monk brother. His eyes were still closed and his face was illuminated with heavenly light. Seeing that they were dumb struck with surprise but could not utter a word and came out silently.

After an hour or so Mrs. Sara Olibul along with Professor William James reached there. Miss S. E. Waldo and Professor John Wright from Brooklyn were with them. All of them were familiar with Swami Vivekananda. The first meeting of Professor James with Swami Vivekananda was arranged by Mrs. Olibul. At that time Swamiji was delivering a lecture at the Harvard University. The subject of the lecture was “The Philosophy of Vedanta” The lecture and more than the lecture the personality of Swami Vivekananda had greatly impressed the audience. The unique feature in those lectures which was felt by everybody present there was that while delivering the lecture light blue electric waves used to emanate from his body and the audience would feel mild to severe electric shocks. James was a famous therapist and was presently engaged in serious research in Psychology. His scientific mind was curious to know the spiritual depths of Swamiji. After requesting the visitors to sit and wait in the drawing

room, Hails whispered something in the ears of Mrs. Olibul and they started smiling. Meanwhile Swamaiji came out of the adjacent room and entering the drawing room said "Welcome to Mr. William" He also enquired about the welfare of others. And then he addressed Dheeramata asking her "Should we go to the dining hall for food? My sisters have not given me any food. Perhaps they may offer food to you and then I can also eat something along with you." At this everybody present had a hearty laugh. Mary Hails and Harriet Hails got a little annoyed but then they also started laughing. After a while all of them were sitting around the dining table. Others were quiet but on the face of William James signs of curiosity were clearly visible. Hence looking at him Swami Viyekananda said "The initial processes of yoga and spirituality are physical in nature. Their effect on the body is also positive. The procedures of *Hath yoga* and the *Asan - Pranayama* of *Rajayoga* are meant for this." William James had read Swamiji's *Rajayoga*. Swamiji further said- "The scientific study of the physiological changes of these preliminary yogic practices is possible, but later when the *sadhak* enters the deeper levels of consciousness, the conditions change. In the higher stages of *Samadhi* when the individual and the almighty or let us say when the individual consciousness of the *yoga sadhak* merges with the universal consciousness there is a radical paradigm shift."

"In this state, the flow of powerful spiritual energy manifests in the body and mind. The science of human physiology is not capable of studying this. In order to

understand this, scientific methodologies of Psychology and Parapsychology are needed. Even by using these methodologies, only partial study of the said changes is possible" Professor James was listening the words of Swamiji intently. Till then he had not started eating. Seeing that, Swamiji requested - "Start eating along with listening" 'Sure' he said and then began eating. Swamiji continued his conversation smilingly - "The spiritual energy descending in the deeper levels of consciousness opens the doors of extrasensory perceptions while bringing elaborate changes in the emotional state. Then the individual does not remain the same; rather he becomes an integral part of the Cosmic Spirit. Then the doors of the future vision, clairvoyance and inner knowledge open up in his experiences."

"The study of spiritual experiences of these higher levels of consciousness falls in the domain of Philosophy. This is exactly like the initial experimental procedures of the physical sciences, which remain locked in the science laboratories, but later the higher forms of those become mathematical models. The same applies to the higher experiences of spirituality. In this stage knowledge of Creation and the knowledge of Self merge with each other so mysteriously that the efforts to comprehend them scientifically become philosophy: philosophy which sprouts in the depths of experience rather than in the shallow ground of imaginary thoughts. Vedanta is such a philosophy" When Swamiji was speaking Hails sisters

were reminded of the meditative state of Swamiji. Now they understood that in that state Swamiji's individual consciousness definitely got merged with the universal consciousness.

The meeting and exchange of thoughts with Swami Vivekananda in the beginning of the winter of 1896 influenced and inspired the thought process of William James deeply and transformed him. After this he wrote his famous masterpiece "The Varieties of Religious Experiences" In this he quoted Swamiji. After this encounter, the Physiologist Professor William James got transformed into a Psychologist and later into a Philosopher. Later, Swamiji had indicated the outcome of the great experiment of meditation undertaken that day in NYC in a letter dated July 9, 1897 written from Almora - "At least in India for the welfare of human race such a machine had been established which cannot be destroyed by any power"

About his work and mission as an instrument of Divine Spirit Swamiji had said:

"It may be that I shall find it good to get outside my body - to cast it off like a worn out garment. But I shall not cease to work! I shall inspire men everywhere, until the world shall know that it is one with God."

Transformation of Consciousness the only Way to Get Divinized

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Maharshi Aurobindo, who had performed innumerable successful experiments in the field of spirituality, was sitting alone on the sofa in his room at his Pondichery Ashram. His eyes were closed; the head was resting on the sofa. Legs were stretched forward in a relaxed position. The hair on the head, shining with the golden aura, and the beard would some times swing in the air. There was an aura of light white-golden peaceful illumination around his face. He sat in this state for a long time. Then slowly he opened his eyes. Champaklal was standing at the door, perhaps waiting for coming inside when the Maharshi opened his eyes. Looking at Champaklal, Sri Aurobindo gently smiled. This smile of his was like a fountain of divine love, immense compassion, and unlimited blessings.

The dusk was approaching. The Sun wrapped up its light from the east and was spreading it in the west. A number of sadhaks used to wait for the evening for many reasons; especially Nirod Baran, Champaklal, Satyendra Thakur,

Moolshankar, A. B. Purani and Becharlal; as all of them would join the evening meditation with Sri Aurobindo and be blessed by his company. Though the meditation used to be of short duration, but the discussions thereafter were immensely enlightening. These evening discussions had started in 1923 and were still continuing (that was the beginning of October 1950). The only thing which had changed was the participants attending it. During these discussions the light of ever brighter luminous aspects of consciousness used to manifest through the words of Sri Aurobindo.

In the month of October the winter had not yet set in at Pondichery. Almost everybody joining the evening discussions had arrived. Nirod Baran was the last to come. Immediately after his arrival everyone sat near the feet of Sri Aurobindo. After a while Mother joined them. Lately she had not been joining the evening sessions of meditation and discussions. After her entry the meditation began. In that deep silence and quiet stillness the heavenly spiritual light of Sri Aurobindo had filled everybody from inside and engulfed them from outside. For some time the status quo was maintained. Then doors of silence were opened and the words started flowing in that stillness. Maharshi Aurobindo himself had broken the silence by announcing that 'I have decided to complete the work on Savitri in a short time'. On hearing these words something in the consciousness of the Mother reverberated quickly but she did not express it.

Maharshi Aurobindo started giving a poetic form to the results of his scientific experiments of spirituality since his early days of stay in Baroda. During those days Savitri had sprouted up and later it had acquired a form. In this context someone had asked him – “After all what is the need of presenting the results of spiritual experiments in the form of poetry” To this he replied 'In poetry there is a facility of expressing the *mantras* and *sutras* together. In poetry numerous aspects of the experienced truth can be expressed jointly. Therefore possibly the *vedic rishis* had expressed their experiments and the results thereof in this fashion”

Vedmantras are composed and sung in the form of *chhandas* (verses). Since the early days of his stay in Baroda to this day almost 50 long years had been spent in the experimentation of spiritual science. All the research and conclusions of all these experiments were being condensed in Savitri. From the point of view of experiences and conclusions these were corrected, revised and refined many times. He seemed anxious to give the final touches to Savitri. In this context he used to say – “Every word of it is the ultimate result of my scientific experiments in spiritual science” Today when he was talking of giving final shape to this work, many memories were surfacing in the minds of everyone sitting there. Ambalal Purani had recalled one instance of 1918 in which Sri Aurobindo asserted – “The freedom of India is a certainty. You come here”. Looking at him and hitting on the table Sri Aurobindo had said “Believe me this is as

certain as tomorrow's Sunrise" Then Puraniji had understood that freedom to India was the result of the spiritual *sadhana* of Sri Aurobindo. It was not a mere coincidence that India got its freedom on 15th August (1947) - the birthday of Sri Aurobindo.

On 20th August, 1940 he had indicated that Hitler was attaining the Devilish powers. Along with that he had also declared that the higher level spiritual experiments will thwart his evil designs. Ultimately that had come true. On 30th April 1945 Hitler had committed suicide and on 15th August Japan had formally laid down arms and admitted defeat. Referring to the results of his experiments, he had said - "The future of India is definitely bright. The spiritual power of India will lead the world." All of them present there were aware of many such facts. Even then there was one question in Moolshankar's mind and he asked - "What is the cause of distress - suffering in the normal life of man" To this he replied - "Separation from God"

Then he added - "We try to suppress the deformities, distresses, darkness buried deep within us and when this suppression goes beyond our control then we throw that out. In both these conditions we remain human - animal, who sometime behaves as human - devil. Transformation is the solution of all these. To dig deep into the profound darkness of deformities - distresses of the self and invite the divine light in - this task is not done in some secluded cave but the divine has to be invited continuously in the

course of our day to day work, in all the states. One should neither get frustrated with this nor run away; nor should strike a deal with the animal or devilish tendencies; rather these are to be transformed. This is the ultimate solution for humans”

After this he said - “The acid test of any individual being spiritual is in his performance of the scientific experiments of spirituality in his day-to-day life earnestly and with concentration”

In his epic poem 'Savitri' Sri Aurobindo's prophetic message of divinized earth and of man's God-like possibility has been summed up thus:

“Nature shall live to manifest secret God,
The Spirit shall take up the human play,
This earthly life become the life divine.”



How Would Practical Application of Scientific Spirituality Transform Human Life?

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“The experiments of scientific spirituality in the personal life make the life meaningful, successful and complete.” Saying this Dr. Raja Ramanna got lost in his thoughts. Perhaps he was trying to dive deep into the dim memories of past in order to bring them into light. In this process the charm of self esteem, virtue and sensitivities had deepened on his tawny face. Many youth were looking at him intently and listening to him with full attention.

The occasion was a youth convention organized by Ramakrishna Mission in its main campus of Belur Math in December 1985. Numerous youth from different parts of the country were participating in this meet. The inner feelings of all of these were mesmerized in the lure of the great personality of Swami Vivekananda, the everlasting inspiration of youth consciousness.

In those days the whole Math was in the ambiance of festivity. Every dawn would bring something new. Every night was the inspiration for a new awakening. That day

Dr. Ramanna was on the stage. Prof. A. L. Basham, the world renowned writer of "The Wonder That Was India" was sitting on one side and Swami Gambhirananda Maharaj, the famous spiritualist, translator and compiler of many works of Swami Vivekananda was on the other side. Swami Bhuteshanand, Swami Lokeshwarananda, Swami Smaranananda and other senior monks were also present on the stage. The presence of all such dignitaries on one stage was inspiring, motivating and encouraging the consciousness of the participating youth.

A little while ago they had listened to Prof. A. L. Basham and now Dr. Raja Ramanna, the then President of Atomic Energy Commission and Scientific Advisor to the Government of India, was speaking. He was the coordinator of the first nuclear explosion in Pokharan in 1974 and the chief of the mission "Operation Smiling Buddha" Along with his expertise in atomic physics, reactor physics and design he had deep understanding of music, philosophy, especially philosophy of Vedanta. Along with the scientific research he was doing regular *sadhana*. Addressing the youth, he said - "The first lesson of Vedanta was taught to me by my widow aunt Rajamma. She told me that for the spiritual life, rituals are not as significant as the refinement of feelings. The individual with refined sentiments believes in providing comfort to others rather than enjoying the comforts for himself. These individuals do not lament on their sufferings rather exhibit valor in eliminating the sufferings of others. This aunt of mine taught me the stories of Ramakrishna

Paramhansa and Swami Vivekananda, along with the stories of epics - Ramayana and Mahabharata. I became a science student by inspiration of my lawyer father B. Ramanna and my mother Rukmini Amma, who was deeply interested in literature. Science had freed me from the pre-conceived notions. The science had taught me that the greatness lies in accepting what had been found true on the experimental touchstone of propriety and objectivity. In the same manner no religion, religious order, race or nation had monopoly on Truth. Truth is universal and belongs to all the nations. Along with the fundamental truths of spirituality, fundamental truths of science have dived deep into my life. From the personality of Swamiji I had learnt the love for music and love for the nation. I had always held him as my guide. This was his influence that after completing Ph. D. from Kings College in London I wanted to dedicate myself for the scientific progress of the nation. By virtue of the influence of Swamiji's teachings, I have succeeded in this to some extent. The message of the Upanishads is '*balamupasya*' meaning - worship strength. Motivated by this I have dedicated myself to strengthen the nation, build up the atomic strength of the nation."

After speaking thus he paused for a while. He looked at Swami Gambhiranadaji sitting next to him and said – "According to me the combination of science and spirituality is required in every field of life. In individual life, its use is compulsory. Then, there will never be dearth of virtues and strength. When both virtues and strength are present, service and good deeds follow. If the sequence

of service and noble deeds continue, none can prevent the life from becoming complete and meaningful." At this juncture he directly looked at and addressed the young participants sitting in front of him and said - "If any one of you wants to ask some questions you can ask without any hesitation." For sometime there was silence. Perhaps the youth were hesitant to pose questions to the great scientist honored with the titles of Padmasri, Padmabhushan and Padmavibhushan.

Even then after a while one young boy asked in a low but firm voice - "Sir! If the fundamental elements of both science and spirituality get incorporated in the personal life then in what ways will these reflect in life?" Dr Ramanna first admired the question as well as the questioner abundantly; then he said - "The first effect of this will be that the thoughts and emotions of the individual would be broad. No stubbornness, prejudice or belief will come in the way of his thoughtfulness. Secondly he will not look at the meanness of others but will care for the greatness of his own or others' objectives. As the third influence he will learn to appreciate, respect and accept the good aspects of every individual, religion, nation, field of knowledge, etc automatically. As the fourth influence he will transform his whole life into a laboratory and every action as an experiment. In this case he will not have a single moment of life or a single piece of action to waste. He will continue researching the truth, greatness, meaningfulness and wholeness throughout his life. As the fifth effect of this, he will be bestowed with such an inner

sight which will not allow him to deviate or diverge from his set goal." After saying that thoughtfully he continued - "Actually the inner sight is the reward of a clean mind; and a clean mind is achieved through noble deeds. This becomes the definition, introduction and synonym of the life of the individual adopting scientific spirituality."

He had just completed saying that when Gambhiranandji Maharaj, the then President of Ramakrishna Math and Mission had whispered something in his ears. He had looked up to the sky and could notice that it was evening, and that it was time for the evening Arati in the Math. After a while, the eminent scientist, Dr Raja Ramanna was sitting in the temple of Shri Ramakrishna in the Math and playing violin while singing Arati - "*Khandan Bhavabandhan jagavandan vandi tomay*" (meaning - I salute to the one who breaks the earthly bondage and who is adored by the world)!



The Education Should Lead to Holistic Development

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“When science and spirituality are applied in a coordinated manner in the educational and social spheres, then only would education be holistic and the society progressive.” While saying this, there was a sparkling glow in the eyes of Dr. Sarvepalli Radhakrishnan. He was visualizing the bright future of India in the purity and brilliance of righteous wisdom. This was a special occasion. Benaras Hindu University had completed 25 years of its establishment. That day the silver Jubilee function was being celebrated. This auspicious day of 21st January, 1942 was unique in itself. Pandit Madan Mohan Malviya, the founder of the University was present on the magnificent stage arranged for the special occasion. Sitting next to him was the beloved Bapu of Indians – Mahatma Gandhi, who was presently leading the freedom movement and deep within he had already envisaged “Quit India movement”

Dr. Rajendra Prasad, Pandit Jawaharlal Nehru and many other great personalities were also present on the same dias. Dr. Radhakrishnan was presiding over the function.

He was the Chancellor of the Benaras Hindu University at that time. He had been associated with the university since 1927 *Mahamana* had designated him as Honorary Professor in the Department of Philosophy and also a member of Senate of the University. Before this in 1925 he was professor in the Department of Philosophy in the Calcutta University. He had represented the university in the International Conference of Philosophy organized in Harvard University and had earned laurels globally.

In the later years Oxford University had utilized his services in many ways and honored him for that. British government, which disapproved of his strong patriotism, had still conferred the highest honor of 'Knighthood' (Sir) for his educational attainments. From 1931 to 1936 he was the Chancellor of Annamalai University. But all this time *Mahamana* was pleading with him to join Benaras Hindu University on a permanent basis. By accepting *Mahamana's* request, which he considered as divine order, on 24th September 1939 he had joined the University as a Chancellor. Since then he was a close associate of Malaviyaji. He was always in discussion and exchange of thoughts with Malaviyaji for bringing revolutionary changes in the educational and social scenario of the nation.

Dr. Sarvepalli Radhakrishnan by now had acquired the honor of a bridge-builder between the thoughts of the East and the West. His books – 'Indian Philosophy', 'Idealistic View of Life', 'The Hindu View of life', 'Eastern Religion

and Western Thought', 'Religion and Society', 'Recovery of Faith' etc had become equally popular in the east as well as west. His interest in teaching was so profound that, in spite of his administrative responsibilities as the Chancellor of the University, he would regularly teach philosophy to students. His philosophy classes were so interesting that not only the students of philosophy but the students of science, medicine and engineering also would come running to attend these. In one of these classes once he had mentioned that "The action aspect of Philosophy is Science and the thoughtfulness of Science is Philosophy."

He was a staunch supporter of the integration of spirituality of the East and the science of the West. He was of the opinion that the fusion of science and spirituality in the field of education would make the whole process more appropriate and goal-centered. Scientific way of teaching would make the student more inquisitive. He would gain courage to accept the truth. In the same way incorporation of spiritual values would enhance the virtue of shouldering responsibility in the teacher, student and the whole process of education. The virtues sprouted through spirituality would lead to the holistic growth of students and hence of the future citizens of the society. In the same way, the application of scientific spirituality in the social field would make the society progressive and not traditional. It has been generally observed that traditions, customs, rituals snatch away the thoughtfulness and the faculty of reasoning from the society. With scientific attitude this fog can be eliminated forever. Through this

attitude, the society can re-estimate the significance of traditions, etc and modify them for a better future. Spiritual values could develop the virtues of the brotherhood, love and sharing and caring. All the students of Dr. Radhakrishnan were inspired by his insights and communication skills. They were proud of the fact that they were students of a university where Dr. Sarvepalli Radhakrishnan was the Chancellor.

That day all of them were collectively listening to the presidential remarks of their chancellor. Earlier they had heard Mahatma Gandhi, Mahamana Malaviya, Dr. Rajendra Prasad and Pandit Nehru. Presently their Chancellor was saying - "I believe, under the able guidance of Mahatma Gandhi, our national leaders and countrymen will achieve freedom soon. I can see that perhaps it may not take more than 5-6 years. In this context I would say that from this moment all the students not only from our university but from all the educational institutions and teachers and intellectuals of India should initiate a thought process which will brighten the future of India. We are sitting in the city of Kashi, the abode of Lord Shiva , who is Adiguru of all the science and knowledge and Mata Annapurna, who is the presiding deity of all the wealth and richness. The voice of the *Vedic rishis* and gods had echoed here. Lord Buddha had given his sermon of Sarnath from here. Thousands of saints and Acharyas of Bharat had transformed their thoughts by getting inspiration from here."

He continued - "My earnest request to you is - why should we not light the innumerable lamps of revolution of scientific spirituality in the educational and social arenas of the nation under the leadership of Mahamana and Mahatma Gandhi. Whatever may be the subject of study but there should be inclusion of the scientific perspective in it. The goal of that education should be the holistic development of personality based on the scientific spirituality. Such rays of revolution should manifest through the society which can eliminate the darkness of regionalism, casteism and racism; and what should remain is the Indianism wrapped up in its spiritual purity. We should dedicate ourselves to the continuous research for the wider national and human welfare" The words of wisdom and patriotism uttered by Dr. Radhakrishnan kindled the flame of revolution in the minds of the listeners.



When the Scientists Would Become Spiritual

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“The scientific world needs a conscientious spirituality - a scientific spirituality. The spirituality of yesteryears professed abandoning this world and was limited to a few rituals. In the modern era the science and scientists of India need a spirituality in which there is continuous endeavor of scientific investigation but there is also a sacred sense of responsibility which keeps the science and scientists away from becoming impure and sinful.” With this statement Dr. Homi J. Bhabha first looked at the gathering of scientists sitting in that hall and then at the attractive painting hanging behind the dais. In that painting, a scene of Mahabharat was painted. Lord Shrikrishna was holding a Chakra on his forefinger; his eyebrows were tense but there was a smile on the lips; and shocked Arjun was holding his feet. On the other side, the army of Kaurvas was depicted awestruck and fearful. Looking at this picture, Dr. Bhabha said – “In fact this picture corresponds to our nation as a nuclear power. This Chakra in his hand is appearing to me like a powerful atomic energy. His raised eyebrows are synonymous with the courageous reply to

the enemies who are awestruck. But a smile on his lips is indicative of the fact that we favor peace; and he is transforming the cowardice and weakness of the nation in the form of Arjun into a valiant deed."

This interpretation of the painting thrilled the gathering of scientists. Inspiring the scientists again, Dr Bhabha said – "Lord Krishna inspires me because apart from being a philosopher he is holding a powerful weapon – Chakra - in his hand. I say scientific spirituality should be made a national religion – a religion in which there is no place for narrow-mindedness or dogma and which caters to the well-being of all the human beings." He was addressing the gathering of scientists as the first Chairman of Atomic Energy Commission constituted after India's independence. The topic was – national ethics of scientists. In this gathering, there were nuclear scientists as well as scientists of other disciplines, some of whom had come specially to attend his lecture.

Dr. Homi Jahangir Bhabha was a source of inspiration for the scientists of independent India. Dr. Bhabha was a born genius. He used to get little sleep. His parents even consulted a physician for this ailment, who diagnosed it to be due to his super active brain and rapid flow of thoughts.

Dr. Bhabha had a highly distinguished career and was an exceptionally bright student. Even as a student, he made some fundamental discoveries in electricity, magnetism, quantum theory and the cosmic rays. In 1932, Dr. Bhabha

was awarded the Rouse Ball Traveling Studentship for two years. He worked with W. Pauli in Zurich and Enrico Fermi in Rome. During this period he was awarded the Isaac Newton Fellowship in 1934 and the 1851-Exhibition Studentship in 1936. Bhabha was fortunate to come into close contact with famous scientists like Rutherford, Dirac, Niels Bohr and Heitler. Paul Dirac greatly influenced Bhabha, during his study of Mechanical Engineering at Cambridge, to pursue an education in theoretical physics. This association greatly influenced his research and way of life.

Dr Bhabha enriched the world of Physics with his unique contribution 'Bhabha-Heitler Cascade Theory'. With Heitler, Bhabha presented the 'Cascade Theory of Electron Showers' in 1937. This theory explains the process of electron showers in cosmic rays. This research brought fame to Bhabha. Bhabha recognized heavy electron particles in cosmic rays and called them 'Meson'. Bhabha's mastery of mathematics can be seen in the 'Classical Theory of Spinning Particles'. The importance of his work received wide recognition.

Bhabha was not a mere bookworm. He had secured many scholarships. During his stay in England and Europe, painting became his hobby, which reflects his inborn taste and a creative urge for art. He visited many art galleries, museums, palaces and gardens. Many of his paintings now grace the walls of art galleries in England. This keen interest made him worship art throughout his life.

Devotion to art and the study of science went hand in hand in Bhabha's life. Bhabha was a bachelor. When once asked about his marriage, he said: "I am married to creativity." Though being a Parsi, his religious text was Zend Avesta, but his favorite book was Shrimadbhagvadgita. He used to say that Gita was not a religious, but spiritual book. He regularly practiced meditation and advised his friends and scientists working with him to do the same. He would explain that the talent, extraordinary intelligence and original thinking that are required for scientific investigation easily come through the door of meditation.

Bhabha returned to India for a holiday in 1939 during the time of the Second World War. He did not return to England and decided to devote his life to the service of his motherland. He accepted an offer to serve as Reader in the Physics Department of the Indian Institute of Science, then headed by Nobel Laureate Dr. C. V. Raman. He received a special research grant from Sir Dorab Tata Trust, which he used to establish the Cosmic Ray Research Unit at the institute. Later he was elected a Fellow of the Royal Society. With the help of J.R.D. Tata, he established the Tata Institute of Fundamental Research in Bombay. He received a commendation from the then Prime Minister Jawaharlal Nehru for his efforts towards peaceful development of atomic energy. The two played a significant role in developing the Indian nuclear program as well as education reforms in India. He represented India in International Atomic Energy Forums, and was President of the United Nations Conference on the

Peaceful Uses of Atomic Energy, in Geneva in 1955. Under his expert guidance the nation's first atomic reactor 'Apsara' was commissioned in 1956. He died in 1966 in a plane crash. One week before his death he told his colleagues that the day the religious leaders realized the significance of science and scientific spirituality, our nation would be at the top of the world.

Bhabha once said – “I know quite clearly what I want out of my life. Life and my emotions are the only things that I am conscious of. I love the consciousness of life and I want as much of it as I can get. But the span of one's life is limited. What comes after death no one knows. Nor do I care. Since, therefore, I cannot increase the content of life by increasing its duration, I will increase it by increasing its intensity. Art, music, poetry and everything else that I do have this one purpose – increase the intensity of my consciousness of life.” True to his statement, he lived his life very creatively as a true seeker. He will remain a 'Role Model' scientist and a great human being for the younger generation to emulate.



All-Encompassing Research is Worship

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“Scientific research is necessary for sustenance and advancement of religion. The findings of research and experiments validate a fact and prove its existence. There is no doubt about the practicality and usefulness of a subject where research and validation coexist. Dark clouds of doubt and disbelief have covered the whole structure of religion and spirituality ever since analysis, investigation and research lost prominence in our religious endeavours. I come from that country of *rishis* (seers) where once upon a time, conducting research was regarded as an act of worship; where, for the first time in the world, the base of progressive science, statistics, was proposed; where, along with mathematical calculations, deep research was done on the science of life; a place where matter and consciousness coexisted as a subject of research. But these connections stand broken today. From the great country of Himalayas and *Ganga* (river Ganges), I bring to you this gift of India's past, the wisdom of Her seers and some water from River Ganga. And I have come to impart to you the message of humanism from the great saint of this century – Shri

Ramakrishna Paramhansa and his disciple Swami Vivekananda”

After saying this, Swami Ranganathananda asked the Moscow University students – Antechiya, Maximova and Vavilova, to spray the holy water from Ganges on the audience. They took their small *kalashas*, dipped the mango leaves and started spraying the holy Ganges water on everybody present at the gathering. Swamiji said, “This is a gift from the seer who lives on the banks of River Ganga to the people who live on the banks of River Volga” - referring to the Russian community present for the discourse. This statement from Swamiji and the droplets of River Ganges enchanted the whole gathering of professors and students in that large lecture theater of Moscow State University.

This function took place on an evening of October 1977 Swamiji had arrived at the invitation of Moscow State University. In that era of USSR it was very difficult to organize an event on religion and spirituality but Swami Ranganathananda, with his radiant personality, had arrived to present a scientific and human face of religion and spirituality.

Swami Ranganathananda was born on December 15, 1908 in the Thrissur village of Kerala; his birth name was Shankaran Kutty. He joined *Shree Ramakrishna Math and Mission* when he was seventeen and half years old. He got his *deeksha* (initiation as a *Sannyasi*) in 1933, on the anniversary of Swami Vivekananda's birth, from Swami Shivananda, a direct disciple of Ramakrishna, also known as Mahapurush

Maharaj. His *sanyasi* name became Swami Ranganathananda. Although he did not have much education in school, yet due to his intense self study and devoted *sadhana*, he mastered countless fields of knowledge and reached the pinnacle of philosophical and spiritual knowledge and wisdom.

Due to his exceptional personality and knowledge he toured 51 countries, serving as a cultural and spiritual ambassador of India. His wisdom is reflected in 50 books that he has authored, 29 of which are published by Bharatiya Vidya Bhawan. Almost all the great thinkers and leaders of his time, including Shri Atal Bihari Vajpayee, Jawarlal Nehru and Smt. Indira Gandhi, gone to him for inspiration and advice.

He was famous for his knowledge of philosophy and spirituality. It is this background which prompted Moscow State University to invite him from -12 October, 1977 for scheduled lectures. But that evening, the senior professors, M. Shirokov, B. G. Kulenestov, Y. B. Molkanov, P. Castrin and Alexandrova, requested him to address informally the faculty and students. During the lecture he stressed that researchers should expand the boundaries of research and should not limit themselves to the present settings. This expansion should also encompass religion, religious life and all religious activities. If this could be achieved then everything undesirable would slowly go away and the useful essence would automatically come to the surface; and then, both the individual and the society would benefit from it.

While immersed in his discourse, which was more of a discussion, two students, Svetlana and Delokarova asked the same question – “What is the relation between religion and spirituality?” Swamiji smiled and replied – “The personal form of religion is spirituality and the practical, societal form of spirituality is religion. The values of society, morals, geographic elements, and a person's attitude, traits and deeds change with time, hence, religion should also change with time. Whereas, spirituality is driven by *sadhana* and the goal of the techniques used for *sadhana* is the holistic growth of an individual – his mind, emotional maturity and his inner power. The techniques differ based on the personality of an individual. Whether it is for religion or spirituality, one should practice research and analysis.”

When he paused for a few minutes, the audience looked on attentively. He then said, “If this could happen, then a universal face of religion will emerge”. Prof Shirokov asked, “What will that be like?” Swamiji replied, “That will be Spiritual Humanism, which will be a meeting point of all religions; it will not be for one country or region but for every human being. But it is possible only when scientific experiments become a part of religious activities. Spiritual Humanism will be the result of confluence of science and spirituality. By practicing spiritual humanism, individual behavior and societal norms could be refined based on existing conditions, and society's qualities, deeds and nature. Also, latest spiritual techniques for self development could be analysed.”

Swami Ranganathananda's idea of Spiritual Humanism found ready receptivity in the Russian teachers and students, and was very much appreciated. When he was departing, Swamiji informally said, "How good will it be if along with diplomatic relationship, a philosophical and spiritual friendship could develop between India and Russia?"

Swamiji's journey was most likely an effort to lay a spiritual foundation in Russia. After returning, Swamiji became engrossed in his spiritual and cultural duties. For his efforts, Indian Government decided to award him Padma Vibhushan in the year 2000. He declined the honor as it was conferred on him in his individual capacity and not for the Mission. He remarked, "I am a saint of Ramakrishna Mission. When I don't have a personal life then why do I need a personal award?" He accepted the Indira Gandhi Award for National Integration in 1987 and the Gandhi Peace Prize in February 1999 as both were conferred on the Ramakrishna Mission.

He served as the President of the Mission from 1998 to 25 Apr, 2005 (the date of his death). Paying homage to Swamiji, the then Prime Minister Manmohan Singh and the opposition leader Lal Krishna Advani said, "Although both of us have ideological differences but we can agree on one thing that Swami Ranganathananda's teachings have inspired both of us and we have benefited from them" They described Swami Ranganathananda and Swami Vivekananda as "leaders with a modern mind and scientific temper."



Role of Spirituality in Improving Management

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“If scientific viewpoint can be blended with spirituality then new horizons can be achieved in improving management.” - Vinobaji told this to Shri Krishnadas Jaju who had arrived with Jamnalal Bajaj a short while ago in the ashram in Wardha, Maharashtra. Jamnalal Bajaj was not only a successful businessman but also a very patriotic person and a great philanthropist. He had not only given monetary support but also his whole family was devoted to the cause of the freedom of the country. He was an avid follower of Mahatma Gandhi who used to consider Jamnalal Bajaj as his fifth son.

A few years before this incident, Jamnalal told Gandhiji, “Bapu, there should be an Ashram in Wardha just like Sabarmati” Gandhiji had agreed to his proposal and sent Ramanik Lal to Wardha, but Ramanik Lal could not stay there long enough owing to his poor health. Then, Gandhiji had to send his favourite disciple Vinobaji. He came to Wardha on 08 April, 1921. This was the start of Satyagraha Ashram near the banks of River Dham.

Vinoba Bhave was born in 1895 and was relatively young at this time but his extensive knowledge, expertise in 23 languages, strict ascetic lifestyle, continuous spiritual self study and most of all, his immense patriotism made him one of the great spiritual figures of his time. Gandhiji used to say, "Vinoba Bhave does not come to me to seek my blessing; I am blessed by his presence."

Within a short time of coming to Wardha, Vinobaji became Jamnalal's guide and close friend. Janaki Devi Bajaj, wife of Jamnalal, used to refer to Vinobaji as her younger brother and took advice from him on important matters. This patriotic couple had also sent their sons - Kamalnayan Bajaj and Radhakrishna Bajaj - to receive guidance from Vinobaji at the ashram. They wanted both the sons to become patriotic and attain some virtues of a seer's lifestyle during their stay at the ashram.

After a long time, Jamnalal Bajaj had come today with Shri Krishnadas Jaju to the ashram. He had thought that apart from meeting Vinobaji, he will also get a chance to meet his sons. They saw from a distance that Vinobaji, his sons, and other disciples were working in the fields in a sweltering afternoon. By the time they reached closer to the ashram, the work in the fields was finished and everybody had come back to the ashram to rest under the shade of trees. Vinobaji had Gita in his hands and was about to start the Gita-class. After watching this, Mr. Jaju jokingly remarked, "Vinobaji, Mr. Bajaj's sons have to manage a big

industrial empire in future, will the teachings of Gita help them to improve their management skills”

Vinobaji looked at both Kamalnayan and Radhakrishna. Sweat was still dripping from their foreheads. Then he remarked in a serious tone, “*Shreemadbhagvatgita* is a book for efficient management of a person's life. One who can manage his life well can manage the whole world with ease”

Vinobaji was spiritual at heart and scientific in his mind. He touched the copy of Gita on his forehead in reverence and said, “Gita is a scientific epic of spirituality. It erases the commonly held blind beliefs and establishes the standards for scientific research. In the discipline of Vedic knowledge, Gita talks about going beyond the *Vedas* for attaining the truth - *trigunyavishaya veda nistraygunyo bhavarjun* [2/45] (O Arjun! *Vedas* talk about three *gunas* (traits) of life; you are beyond the three *gunas*, go beyond *Vedas*.) Is this not a reflection of the scientific outlook of Gita? It has a detailed description of creation of life and the world, a scientific analysis at every minute level of interaction between life and physical world. Now if you are talking about teachings of business management through Gita then let's discuss that today.”

Krishnadas Jaju had heard about the greatness of Vinobaji from Gandhiji and Jamnalal Bajaj on several occasions. He had also met Vinobaji several times but this was the first time he heard Vinobaji speak the way he was. Vinoba's

face, eyes and voice exuded the purity and excellence of sage wisdom. Vinobaji said, "Gita teaches the following four ways of life management: First, by *tapa* (ascetic practice) and appropriate lifestyle one achieves a healthy body; second, by practicing *Pranayaam* and meditation, one achieves an excellent state of mind; third, by experiencing the omnipresence of God, one develops compassion; and lastly, by practicing various spiritual *sadhanas* described in the Gita, spiritual aspects of one's life are enriched with new ideas and energy."

"The powerful message of Gita can also be practiced in business management. If a person follows the teachings of Gita to become a *sthitpragya* (a person of steadfast wisdom), he develops *doordarshita* [farsightedness], *sookshmadarshita* [ability to see and analyze something hidden/invisible to the eye] and *sampoornadarshita* [ability to see the picture in totality]. It also gives him the knowledge which makes him doubtless, unbiased and single-pointed. Any plan made by such an individual will never fail. Any decision made by his illumined wisdom will never prove wrong. He will always be involved in a new venture due to his creativity.

"Successful execution of a business venture is possible by following the *karmayoga* prescribed by Gita. A true *Karmayogi* keeps doing work of great quality without stopping or getting tired. He thinks about his action (*karma*) and not its results (*phala*). That is why his actions are full of excellence, prominence and energy. Lord

Krishna says *na hi kalyankratkashchidadurgateem taat gachchhati* – {O virtuos man! a person whose actions are for the benefit of others does not suffer}. This means if he completes a task with pure conscience it will also bring prosperity to the business.

“By practicing *Gyanyoga*, a person attains self knowledge, makes new discoveries, and unearths new dimensions of his talents. The newfound knowledge and skills give him the ability to face challenges and answer new questions in life. The practice of devotion augments compassion, gives him the ability to understand and touch the hearts of others and gives him the strength to make others his own. He also develops leadership qualities which can take a business to the pinnacles of success. In Gita when God talks about seeking his protection [*sharanagati*], it means practicing self-surrender to become divine. A person practicing this will easily adapt himself to face the new challenges and attain happiness. He will have an amazing power to inspire himself and others. He will attain extraordinary capabilities and completeness [*karma sampoornata*]. I believe, management is the ability to bring out the full capabilities of self and others and to bring about a state of coordination amongst all.”

Krishnadas Jaju had heard such words for the first time. He realized that Bhagvat Gita was scripture of scientific spirituality. He heard what Vinobaji was saying, “Development of qualities, sound ability to judge and coordination of the abilities of self and others are the

teachings of Gita and these indeed, constitute management." Jamnalal Bajaj was very happy listening to these words; he thought that Gandhiji had given him a divine gift in the form of Vinobaji. Kamalnayan and Radhakrishna were also very happy to have an able Guru in Vinobaji.

While leaving, Jamnalal asked his sons, "What have you learnt till now?" Both of them answered, "Baba has taught us that, one who conducts himself righteously succeeds in his business immensely" Vinobaji was looking into the window of future when scientific spirituality will be revered in the modern age and regarded as the new philosophy and the new science.



Scientific Spirituality: Twenty first Century's Philosophy and Science

29

'Scientific spirituality is the new philosophy and new science of new era. I am glad to see it sprouting in the premises of Devsanskriti Vishwavidyalaya (DSVV).' - This appeared to be the silent expression on the face of the then President of India Dr. A. P. J. Abdul Kalam. He reached DSVV around 2 PM on December 9, 2006 as chief guest on the occasion of its second convocation. He had already been acquainted with the uniqueness of this university and the patriotic and ascetic life of Pandit Shriram Sharma Acharya, its founder patron. He was deeply impressed by sincere efforts of Acharyaji for the cultural renaissance of Indian society and the integration of science and spirituality.

On arrival, Dr Pranav Pandya, Chancellor of DSVV, Sri Sudarshan Agrawal, the then Governor of Uttaranchal, Dr. N. D. Tiwari, Chief Minister of Uttaranchal and Dr. S. P. Misra, Vice Chancellor of DSVV welcomed the President onto the dais. The present co-patron of the university, revered Shail Jiji was also present on this occasion. In front

of this dais, there was a vast gathering of students, guardians of the passing-out students, professors and officers of the organization. The toppers of Bhartiya Sanskriti Gyan Pariksha, who came from different parts of the country, were also waiting for the convocation address of the President.

Before starting his address, Dr. A. P. J. Kalam quoted the couplet of Thiruvalluvar's *Thirukkural*: 595. Its essence is – 'Water depth is (equal to) the lotus stalk, man's merit is (judged by) his mental strength.' He continued – "I am feeling very happy to be with you on the occasion of second convocation of Dev Sanskriti Vishwavidyalaya. I know that this university is giving shape to the dream of a freedom fighter and a social reformer Pandit Shriram Sharma Acharya....." In his speech, he praised the efforts of the university in the direction of teaching and research, personality development, leadership and village development program and also gave his valuable suggestions for improvement.

He recalled an incident which highlighted how the fusion of science and religion could lead to the transformation of religion into a spiritual force that could be utilized in the development and welfare of the society. [He has also mentioned this incident in his book titled 'Indomitable Spirit' (page128)]. In his own words – "Prof. Vikram Sarabhai, the visionary of India's space research program, along with Dr. Homi Bhabha, was looking for a suitable site to establish a space research station in the equatorial

region. These two great scientists had visited a number of places and finally selected Thumba in Kerala as the site, as it was near the equatorial region and was ideally suited for their needs. When Prof. Vikram Sarabhai visited Thumba, he noticed that it was rather densely populated with many of fishermen living in and around the area. It also had a beautiful ancient church, St. Mary Magdalene Church, Pallithura and Bishop's house. Prof. Vikram Sarabhai met several politicians and bureaucrats to get approval for Thumba as a site for the work of space science research, but he met with no success. He was then advised to see the Bishop of Trivandram, His Excellency Rct. Rev. Dr. Peter Bernard Pareira.

“It was on a Saturday when Prof. Vikram Sarabhai met the Bishop. The Bishop smiled and asked him to come to the church the next day. In the Sunday morning service in the church, the Bishop told the congregation, 'My children, I have a famous scientist with me who wants our church and the place where I live for the work of space science research. Dear children, science seeks truth by reasoning. In one way, science and spiritualism seek the same divine blessing for doing good for the people. My children, can we give the God's abode for a scientific mission?' There was a chorus of 'Amen' from the congregation and the whole church reverberated. And His Excellency Rct. Rev. Dr. Peter Bernard Pareira, the Bishop of Trivandram, took the noble decision to dedicate the church in recognition of the national goal for the establishment of Indian Space Research Organisation at Pallithura, Thumba.”

Elsewhere (page 125) in the same book, Dr. Abdul Kalam has cited an example of how the fusion of technology and spirituality can lead to self-reliance. "In 1893 a ship was sailing from Japan to the USA. There were hundreds of people in that ship including two significant Indian personalities - Swami Vivekanand and Jamshetji Nussereanji Tata. Jamshetji was crossing the Atlantic Ocean to bring steel manufacturing technology for a steel plant which he wanted to set up in India. Earlier Jamshetji had gone to England for this purpose, but British manufacturers had refused and ridiculed him saying that if Indians would make steel, Britishers would eat it!

"Swami Vivekanand asked Jamshetji the reason for traveling to the USA. Jamshetji told him that he wanted to bring the steel technology to India. Swami Vivekanand blessed him and said that steel technology has two components - one, steel science and the other, manufacturing technology. What you can bring to this country is material technology, but you will have to build material science within the country. This triggered a dream in Jamshetji's mind.

"Jamshetji was successful in bringing steel technology from the USA and the Tata Iron and Steel Company (TISCO) was established in Jamshedpur. A few years later, in 1898, Jamshetji N. Tata wrote a letter to Swami Vivekanand:

'23 November 1898

Dear Swami Vivekanand,

I trust you remember me as a fellow- traveler on your voyage from Japan to Chicago. I very well recall at this moment your views on the growth of the ascetic spirit in India, and duty, not of destroying, but of diverting it into useful channels.

I recall these ideas in connection with my scheme of Research Institute for Science of which you have doubtless heard or read. It seems to me that no better use can be made of the ascetic spirit than the establishment of monasteries or residential halls for men dominated by this spirit, where they should live with ordinary decency, and devote their lives to the cultivation of sciences - natural and humanistic. I am of the opinion that, if such a crusade in favour of an asceticism of this kind were undertaken by a competent leader, it would greatly help asceticism, science and the good name of our country; and I know not who would make a more fitting general of such a campaign than Vivekanand. Do you think you would care to apply yourself to the mission of galvanizing into life our traditions in this respect? Perhaps you had better begin with a fiery pamphlet rousing our people in this matter. I should cheerfully defray all the expenses of its publication.

Jamshetji N. Tata'

A visionary like Jamsheji with the blessings of Swamiji paved the way for the establishment of the Indian Institute of Science in 1909. The Indian Institute of Science, born out of a vision of two great minds, is a world class institution in areas such as physics, aerospace technology, knowledge products, bio-sciences and bio-technology.”

The author of such inspiring lines, Dr. Abdul Kalam said that there are no parallels of such examples in any other country. In the present scenario we have to move several steps beyond this point. Now there is need for scientific research in the area of spiritual methods, even though there arises the need to design altogether a new methodology or to develop a new structure. This kind of unique research can be done only in India. If that happens then new doors will be open to finding solutions to the physical and mental ailments of human beings, and that to the social and political problems.

Dr. A. P. J. Abdul Kalam was present in the convocation function for a short time, but the students of DSVV very much admired this unique personality who, in the childhood, distributed newspapers from door to door for earning the expenses of his studies and who became a defence scientist of such a high caliber that he was considered a missile man of India and was instrumental in the second underground nuclear explosion in Pokharan in 1998 and finally who made his way to become the President of the Indian Republic. In this short duration, after the convocation address, he met several students, got

photographed with them and inspired them with one or two noble sentences.

Though all his books are inspiring but his message in the title 'Indomitable Spirit' is penetrating and soul-searching regarding the integration of science and spirituality. In this book, on page 134, he writes: "In an answer to a question from a student on the difference between science and spiritualism, I explained that science tries to provide solutions for a better material life, while spiritualism looks at answers on how to lead a righteous life through such actions as prayers. Both combined lead to the creation of an enlightened citizen. Rationality and logic are intrinsic to science and spirituality. A spiritual experience is the goal of a deeply religious person whereas a major discovery or an invention is the goal of a scientific mind. If both the aspects are unified, we can transcend to that level of thinking where there is unity of purpose and action."

For this unity, a sincere investigation is required and that needs, in the words of J.N. Tata, spiritual personalities who can live a simple life yet dedicate themselves to the fusion of science and spirituality. The seer-sage of the present era, Pandit Shriram Sharma, Acharya, manifested such a synthesis in his life and works. He established Brahmavarchas Research Institute, the first laboratory of scientific spirituality on the sacred bank of Ganga which later expanded into Devsanskriti Vishwavidyalaya.



Journey from Brahmavarchas to Dev Sanskriti Vishwavidyalaya

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The genesis of study and research on scientific spirituality began with the establishment of Brahmavarchas Research Institute on June 05, 1979. The celebration of Gayatri Jayanti Festival was in full swing. Gayatri Jayanti has always been an important event for Gayatri Pariwar parijans and the residents of Shantikunj Haridwar. That year the importance of the festival was even more because Brahmavarchas Research Institute was to be inaugurated on that day. Half a kilometer from Shantikunj near the bank of Ganga, this Institute was a dream of Poojya Gurudev come true.

It was around 10 AM. Gurudev had completed all his day's programs in Shantikunj and reached Brahmavarchas premises. Along with him came the volunteers of Shantikunj and members of Gayatri Pariwar from various parts of India. The gathering was much less as compared to the number of people we see in Shantikunj these days. But this handful of people had the enthusiasm bubbling in them to see the inauguration of Brahmavarchas. There

were some volunteers of Shantikunj who had already been working in the Mission for a long time and they seemed to be ready to take up any future challenges. Gurudev looked at each one of them with lot of hope. They also greeted him with exultation – '*Sadgurudev ki Jai*' (Let our master be victorious). After that the ceremony of consecration of twenty four idols of Mother Gayatri in the temples made on the ground floor of Brahmavarchas began.

All the twenty four idols were consecrated by Acharyasri (who had accomplished 24 *Purushcharans* of Gayatri Mantra)). He then addressed the gathering. His voice came to the audience as a cool breeze from nearby Ganga in the hot summer. The first two words “Ladies and Gentlemen” rejuvenated everyone physically and mentally. He said, “The Brahmavarchas Research Institute that we are establishing today will serve as a foundation for 21st century's bright future in terms of philosophical and scientific ideologies. In Vedic times Rishis had foreseen the fusion of science and spirituality and had done extensive research in this area. But in the medieval period and the present age, the circumstances had severed the linkage between science and spirituality. It is due to this broken linkage that science has become destructive and spirituality has become synonymous with superstitions. The race for production of ever more destructive nuclear weapons that began during Second World War has not yet stopped. The purity and creativity behind spirituality has also vanished. To overcome these negative effects, drastic efforts are needed to integrate science and spirituality. The

journey of research and study of scientific spirituality needs to commence. We are taking this step today. But it will be carried forward by the next generation."

Gurudev's words were generating the waves of curiosity among the listeners. What would be the shape of research in science and spirituality? How would it be done? Gurudev sensed their thoughts and continued.

"This research would be theoretical as well as experimental. The theoretical aspect would be concerned with individual, familial, social, political and economic problems. The solutions will be searched, keeping in mind the scientific and spiritual aspects of life. These solutions would lay the foundation for scientific spirituality. This will help in adopting a scientific approach to the life's philosophy. The same approach would form the basis for experimental research. The latter would be conducted in two parts. First part of research would involve the survey of problems at family and societal levels. Other than field study, questionnaires will be circulated and interviews will be conducted. Various methodologies will be applied, based on the circumstances. The main aim of this would be a scientific study of the impact of spiritual thinking on the behavior and character of people."

"The same investigation would be carried out in the laboratory. It will have three important aspects- (i) Study of the effect of spiritual *sadhanas* on the *sadhak's* body. For example, the effect of chanting mantras, fasting, etc; (ii)

study of the psychological effect of spiritual experiments on *sadhak*'s behavior and thought process; and (iii) parapsychological study of the effects of special *sadhanas* undertaken by the *sadhak*. It will also test the paranormal abilities like telesthesia, premonition, extra-sensory perceptions and electro-magnetic field of the *sadhak*. New techniques would be developed which would help in scientific investigation of the truthfulness of a spiritual personality."

He said all this in a flow and then kept quiet for a few minutes. He visualized something in his mind and his face lit up with a glimpse of the future. He smiled and said, "This will require immense efforts. This place is very small and the people are also few. Hence in future it would be expanded into a grand university. The dream that I have visualized will become a reality. All of my dreams have come true. This too will materialize. The activities of Brahmavarchas will become the foundation for a *Vishwa Vidyalyaya* (university), where several other aspects of *Dev Sanskriti* (divine culture) will unfold themselves and where the scientific spirituality will be studied in a new and elegant way."



Lighting of the Lamps of Scientific Spirituality

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The colorful thoughts of the future of scientific spirituality were pervading the minds everyone in Devsanskriti Vishwavidyalaya (DSVV). The evening class on this day of the week is always eagerly awaited by the students as well as the professors of the University, including the Vice-Chancellor, deans, officers and the employees of the university. That day also every one assembled in the two halls located above the university mess. The volunteers residing in Shantikunj and Brahmvarchas had also gathered to listen to this lecture by the Chancellor of DSVV, Dr Pranav Pandya. That's why when the halls were full, people stood near the windows and gallery too.

Topic of the lecture was very interesting, "Current status of scientific spirituality in DSVV and future plans" A department for the study of scientific spirituality was set up sometime back. At present, scientific spirituality is a special and compulsory course for each and every program of studies at DSVV. This activity is in its developmental

phase. Course curriculum for PG Diploma is “The basis of scientific spirituality” in the I Semester and “Experiments of scientific spirituality” in II Semester.

At the Graduate Level, i.e. for B.A. / B.Sc. students the course curriculum is:

Semester I–	Basic structure of scientific spirituality
Semester II–	History of scientific spirituality
Semester III -	Scientific spirituality in different religions of the world
Semester IV–	Scientific aspects of spiritual sadhanas
Semester V–	Models of scientific spirituality
Semester VI -	Scientific spirituality in the management of life

For Post Graduate programs, i.e. M.A. /M.Sc., the curriculum is more elaborate,

Semester I –	Philosophy behind scientific spirituality
Semester II –	Similar Elements in science and spirituality
Semester III –	Research Methodologies in scientific spirituality
Semester IV –	This is a special paper, the course content for which is based on the program in which a student is registered. For instance

1. Practical experiments of scientific spirituality on Yogic Science and Holistic Health.
2. Practical experiments of scientific spirituality on Practical Yoga and Human Upliftment
3. Practical experiments of scientific spirituality in Clinical Psychology
4. Practical experiments of scientific spirituality in Journalism and Public Relations
5. Practical experiments of scientific spirituality in Indian Culture and Tourism

This is the current structure of the course curriculum, which is prepared by the Department of Scientific Spirituality. The Chancellor told all this and then started narrating his meetings with Gurudev. He narrated how his parents and other family members had been associated with Gurudev for decades. As a student when, he used to visit Mathura, Gurudev used to prepare him for future planning of Scientific Spirituality. In this context, he narrated his innumerable unforgettable experiences with Gurudev.

The session would have gone like that when a B.Sc. student asked, "Papaji, Please tell us the future of scientific spirituality" The answer echoed within the inner-self automatically on listening to the question of that Girl. The bonding of the students to the Chancellor is so strong that they address him as 'Papaji' (meaning father). So far as the future plans of scientific spirituality were concerned the

audience was told that the curriculum of PG Diploma and M.A. degrees was being developed with special focus on some important points. First point is based on health. This includes physical and mental wellness. Second point focuses on management - managing jobs, money, and groups, using the principles of scientific spirituality. Third point is related to Behavioral Science. It is planned to use scientific spirituality in the fields of religion, psychology, and human resources development. Next focus is on 'Personality Development'. Curriculum is being developed to include the following points: How to improve one's personality? What virtues should be cultivated for guaranteed success? How to develop business and spiritual skills for development? Course content is being developed for social science and social work in accordance with rules of scientific spirituality.

Scientific spirituality is expanding its horizon to Cosmology and "The Science of Self" Cosmology is also a multi-faceted subject. This course would not be limited to classroom sessions. High end laboratories will be set up for these, where practicals will also be conducted. After saying all this, the Chancellor recited a hymn from Bhagavad Gita, especially for the students,

*"Mayaivaite Nihataah poorvamev nimittamaatram bhav
savyasachin."* (11/33).

This means, "Oh Savyasachi (Capable of using a bow with dexterity from left hand too)! All these warriors in front of you have already been killed by me. You just become an instrument (medium)."

Then the meditation began in the class; many interpretations of the hymn came to everyone's minds. 'Papaji' was thinking that whatever worthwhile has happened in his life is due to making himself an instrument of Gurudev and he has to be instrumental in achieving many more such goals in his life.

It was a starlit night when everyone came out. Deep Yagya was organized in the Mahakaal temple. The temple was beautifully decorated with lamps. It was felt as if myriads of lamps of scientific spirituality have been lit on earth and in the sky.

